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CANADA

# MEDICAL JOURNAL.

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## ORIGINAL COMMUNICATIONS.

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*Case of Operation for Chronic Hydrocele with Densely Hypertrophied Walls, complicated with Hernia: tying the Sac of the latter close to the Ring—Radical Cure.* By JOHN REDDY, M.D., L.R.C.S.I., &c., Physician to the Montreal General Hospital, &c.

There are a few points in the following case which are not devoid of practical interest, illustrating the difficulties that are occasionally met with by the operator. We have here a large, dense, smooth, and firm tumour, unyielding to the touch, presenting no evidence of fluctuation—its history, however, permitting of no doubt as to its original nature. Coupled with this a large double hernia exists, both easy of reduction, that on the left projecting as far, but giving no positive evidence of its entering into the tumour. The operation at first sight seemed simple and easy of execution, but on making the first incision it gave one the idea that the knife was passing through a tough and rather dense cartilaginous structure, which as I proceeded, I found to be more than three quarters of an inch in thickness—all alike in character. Having used the precaution of dissecting from below upwards, I found that about the centre of the tumour my knife had passed into a small cavity, which I soon ascertained to be about an inch in length, of the terminal sac of the hernia, small in diameter and firmly united to the general mass, leaving no alternative in the removing of the tumour but cutting it straight across. It is unnecessary for me to refer further to the steps of the operation, as they have been already detailed in the notes furnished by my dresser, Mr. Perrier. I am not, however, aware of a similar case being on record where a hernial sac has been tied quite close to the ring, and what is well worthy of note, without a single bad symptom arising. I wish further to add that my patient derived great benefit from the occasional use of carbolic acid and oil (1 to 5) in promoting healthy action and rapid cure. I have had an opportunity of examining Durney with

in a few days past, and have to report that the case has turned out most satisfactorily, a perfect cure resulting, 15 months having elapsed since the operation.

Richard Durney, a labourer, aged 56, was admitted into the Montreal General Hospital on the 19th July, 1867. On examination it was found that the left side of the scrotum was enormously distended, but firm and hard, giving no fluctuation or other sign of the presence of fluid. The tumour measured 20 inches in its long diameter, and 5 in its transverse.

The account he gives of the growth of the enlargement is the following:—About 8 years ago he strained himself and became ruptured on the left side. Four years subsequently he perceived that the side of the scrotum was becoming gradually distended; after a period of two years the tension became so great that he sought relief at the hands of a surgeon. The fluid was removed at once, and the operation repeated three times, at intervals of two months. He now permitted six months to pass without having the dropsy tapped; at this time he perceived that the tumour became apparently firmer and harder, and he experienced considerable pain in the part; finally it burst and discharged about a pint and a half of thick pus. On one occasion, a short time after, there was considerable hæmorrhage from the same opening.

It was resolved to remove the whole of the diseased parts, as this was considered the only method by which a perfect cure could be effected, Tapping and injection would of course have been of no avail, as the parts were so entirely altered by the previous suppuration, that no adhesive inflammation could be looked for in them; accordingly on the 28th July the operation was performed by Dr. Reddy in the following way. A longitudinal incision, of about 6 inches in length, was made through the integument and immediately underlying tissue. This was then reflected back on both sides, considerable difficulty being experienced in this step by the dense and unyielding nature of the areolar tissue and dartos of the scrotum, which were completely solidified by previous inflammation. The next step was to make a transverse incision with a view to separation of the parts. The protruding bowel was carefully held up by an assistant, and the incision made below the point where it was thought the hernial sac terminated, but, unfortunately, it turned out that the lower end of the sac was severed; the tunica vaginalis extremely thickened, and the testicle was dissected out and removed. The Doctor then proceeded to secure the portion of intestine in its place; this was done by bringing the cut lips of the sac together, transfixing in the centre with a double threaded needle and tying firmly on both sides. A

strong ligature was then cast around the whole. The cavity was sponged with a solution of carbolic acid and oil, and stuffed with strips of lint soaked in the same.

The wound progressed very favourably from the first, healing nicely by granulation under the influence of daily injections of carbolic acid and oil and a solution of permanganate of potash, which latter was occasionally used.

By the 12th August he was nearly well, much improved in feeling since the removal of this cumbrous weight. The hemp ligature round the neck of the sac still remains. 5th Oct., the ligature came away. The wound is entirely healed, except along the tract of the latter, and the hernia is radically cured.

The specimen, which has been carefully put up by Dr. Ross, House Surgeon Montreal General Hospital, is now in the museum of McGill University; it presents above, the smooth hollow platform which formed the floor of the hernial sac; and below, the tunica vaginalis, thickened in some parts to the extent of more than three quarters of an inch. The cavity of the tunica is small, and at its posterior part is seen the small shrunken testicle, the tubules of which are all completely disorganized.

877 St. Catherine St., Phillips' Square, November, 1868.

*An Essay on the Contagion, Infection, Portability, and Communicability of the Asiatic Cholera in its relations to Quarantine; with a brief History of its Origin and Course in Canada, from 1832.*

By W. MARSDEN, A.M., M.D., ex-President and Governor of the College of Physicians and Surgeons, Canada East; Honorary Fellow Medico-Botanical Society, London; Corresponding Fellow Medical Society, London; Honorary Fellow Montreal Pathological Society; Honorary Fellow Berkshire Medical Institute and Lyceum Natural History; Honorary Fellow Medico-Chirurgical Society, New York; Honorary Member of the American Medical Association, &c., &c., &c.

(Continued from our last.)

I think enough has already been said to justify the assumption of a contagious property to Asiatic Cholera; but before leaving the subject, I will adduce two general facts which strongly support this opinion. The first is connected with the local progress of the disease, as when it begins in a camp or a town. There, its first appearance is announced in the attack of one or of a few individuals, and the number of the cases gradually increases. This course cholera has universally pursued. Now,

had the cause of the disease been generally diffused in the atmosphere of the camp and town, would not great numbers of the people have been attacked, almost immediately, on the occurrence of the first case?

The second general fact is the following:—Among the islands of the Indian Ocean, it was observed that the cholera uniformly commenced its ravages in the seaport towns, or in those towns seated a few miles inland, which have a constant intercourse with their harbours at the shore. In the island of Mauritius, the disease first appeared in the town of Port Louis. In Bourbon, the town of St. Denis was first attacked; in Java, the town of Samarang, and so of the islands Sumatra, Penang, Borneo, Celebes, Lucon, &c. In the Persian Gulf, also, the same order of infection was observed. Muscat, the principal trading port town, first received the disease. Then, the port of Bahrein, and Busheer and Bassara.

The same order was observed on this continent. First the port of Quebec was attacked, then New York, New Orleans, Halifax, Boston, &c. How can this extraordinary and uniform partiality which the cholera exhibited in its choice of seaport towns for its first inroad be explained, unless on the principle of contagion?

QUARANTINE is a subject that occupies a larger space in the pages of medical history at this time, than it has done hitherto. The interests of a commercial country, says Kennedy, require that vessels should enter and depart from its harbours without let or impediment—for the interposition of a very slight delay may completely alter the character of a mercantile speculation, and the interval of a single week may convert a valuable article of import into an unmarketable drug. In such a country, therefore, no regulations restrictive of the freedom of maritime enterprise should be adopted *without the strongest plea of necessity, and the best-founded assurance that they are likely to prove adequate to the accomplishment of their object.* If injudiciously framed, or imperfectly executed, they merely serve to aggravate the evil they were intended to prevent. These observations are peculiarly applicable to quarantine laws, the operation of which is not only detrimental to property, but productive of very serious annoyance to individuals, by the sacrifice they are obliged to make of their personal liberty to the general safety.

The progress of the Eastern Pestilence, and the evidence of its contagious character, leave no doubt of the propriety of submitting to many inconveniences for the purpose of staying its approaches to our shores. No rational means should be left untried to bar the introduction of so terrible a scourge—and as the magnitude of our dealings with foreign countries tends at once to augment the peril from the disease, and the

pecuniary loss incidental to the adoption of sanitary precautions, it is manifestly unwise to have recourse to these precautions at all, *unless they are based upon sound principles, and scrupulously carried into effect.*

The efficiency of quarantine regulations, as I have always remarked, will depend upon their being adapted to the nature and laws of the agent they are intended to exclude. If the lurking poison long retain its power under circumstances unfavourable to its development, then must the term allotted to the purifying and disinfecting process be proportionally protracted. For persons in apparent health, the quarantine must always exceed the longest possible period of latent infection.

The following extracts are condensed from the "Report of the International Sanitary Conference relative to the origin, endemicity, transmissibility and propagation of Cholera," adopted on the 21st of May, 1866, at Constantinople, and form an appropriate sequel and summary to this paper, endorsing as it does in every essential particular the conclusions at which I arrived and promulgated years ago.

1stly.—On the *Origin of Asiatic Cholera.*

a.—That Asiatic Cholera had its origin in India, where it exists permanently as an epidemic.

b.—That *out of India Asiatic Cholera never spontaneously develops itself.*

c.—That there is little probability that Cholera may acclimate itself out of India.

d.—That Asiatic Cholera does not appear to have its original focus in the Hedjaz, but has been introduced there from abroad.

e.—That Asiatic Cholera is endemic in some parts of India.

f.—That the special conditions under the influence of which Asiatic Cholera breaks out in India, and reigns in certain localities as an epidemic, are not known.

g.—That pilgrimages are in India the most powerful of all the causes which tend to develop cholera epidemics.

2dly.—On the *Transmissibility and Portability of Asiatic Cholera,* it says :

a.—That *Asiatic Cholera is propagated by man with a rapidity proportioned to his movements, and that its transmissibility is an incontestable verity.*

b.—That *Asiatic Cholera cannot propagate itself at a distance by the atmosphere alone, whatever may be its condition, and besides it is a law without exception that never has an epidemic of cholera extended from one point to another in a shorter time than was necessary for man to carry it.*

- c,—That all means of conveyance from countries affected with Asiatic Cholera ought to be suspected.
- d,—That a man affected with Asiatic Cholera is himself the principal propagating agent, and a single cholera patient may cause the development of an epidemic.
- e,—That a single individual (with the more reason many individuals) coming from a contaminated place, and suffering from diarrhoea, is able to cause the development of a cholera epidemic; or in other words, that the diarrhoea called premonitory is able to transmit cholera.
- f,—That the period of incubation of Asiatic Cholera does not extend beyond a few days.
- g,—That there is no proof that cholera has been imported by living animals.
- h,—That Asiatic Cholera can be transmitted by articles in common use coming from an infected place, and especially by those which have been used by cholera patients, and the disease may be transported to a distance by these same articles when closely shut up from the outer air.
- i,—That there is no proof that Asiatic Cholera can be transmitted by merchandize. But the commission thinks it wise to consider as suspected, under particular and determined conditions, everything coming from a cholera district.
- j,—That although it is not proved that the bodies of patients dying of Asiatic Cholera can transmit the disease, it is prudent to consider them as dangerous.
- 3rdly,—On the influence of means of communication, the commission states:
- a,—That maritime communications are by their nature the most dangerous; and next to them, comes communication by railroad, which in a very short time may carry the disease to a very great distance.
- b,—That great deserts are most effectual barriers to the propagation of Asiatic Cholera.
- 4thly,—On the influence of crowding, it says:
- a,—That all crowding together of human beings among whom Asiatic Cholera has been introduced is a favourable condition for the rapid spread of the disease.
- b,—That the intensity of Asiatic Cholera on board of ships, crowded with men, is in general proportionate to the crowding, and is so much the more violent, other things being equal, if the passengers have not resided in the focus of cholera whence they started; that

on crowded ships the spread of cholera epidemics is ordinarily rapid ; that the danger of importation by ships and giving rise to a grave epidemic, are not entirely subordinate to intensity, not even to the existence of choleraic symptoms during the voyage.

c.—That the crowding together of persons from a place where Asiatic Cholera exists, has not the effect of producing among the people at quarantine a great extension of the disease ; but such a gathering is dangerous to the neighbourhood, and calculated to favour the propagation of cholera.

d.—That great gatherings of men (armies, fairs, pilgrimages) are one of the most certain means for the propagation of cholera ; that they constitute the great epidemic foci, which, whether they march after the manner of an army, or whether they are scattered, as at fairs and in pilgrimages, import the disease into the country which they traverse.

e.—That the breaking up of a collection of people, at an opportune time, may render an epidemic of cholera less violent or even arrest its extension ; but this scattering, on the other hand, gives rise to great danger of propagating it, if it take place in the midst of a region as yet unaffected by cholera.

f.—That the pilgrimage to Mecca, has twice introduced Asiatic Cholera into Egypt with an interval of thirty-four years, during the hot season.

5thly.—On the *Influence of Hygienic Conditions*, it concludes:

a.—That the Hygienic and other conditions which predispose a population to contract Asiatic Cholera, and favour the intensity of epidemics, are misery, overcrowding, the hot season, want of fresh air, exhalations from a porous soil impregnated with organic matters, above all with the dejections from cholera patients. In addition:

b.—That the *cholera discharges contain the generative principle of Asiatic Cholera*, and drains, privies and the contaminated waters of towns may become the agents for the propagation of the disease.

c.—That *the soil of a locality, once impregnated with cholera detritus, may retain for a considerable time the property of disengaging the principle of the disease, and thus keep up an epidemic, or even regenerate it after it has become extinct.*

6thly.—On the *Immunity from Cholera*, the commission is of opinion:

a.—That the immunity of certain localities, and persons in the midst of an infected district, does not exclude transmissibility.

7thly.—The deductions relative to the *generative principle of Asiatic Cholera*, by the commission are :



- a,—That it *originates* in certain countries in India, and that it dwells there permanently; that this principle is reproduced in man, and accompanies him in his journeyings; that it may also be propagated at a distance from place to place by successive regenerations, without ever being reproduced spontaneously outside of man.
- b,—That the air is the principal vehicle of the generative agent of cholera.—*The action of the cholera miasm is so much the more sure as it operates in a confined atmosphere and near the focus of emission. That cholera miasm, like typhus, rapidly loses its power in the open air at a short distance from its starting point.*
- c,—That the transmission of Asiatic Cholera by the atmosphere is limited in most cases to a space very near the focus of emission. That transportation by the atmosphere to a distance of one or more miles is not established.
- d,—That water and certain ingesta may also serve us vehicles for the introduction into the organism of the generative principle of Asiatic Cholera. That it penetrates into the economy by the respiratory passages, and very probably also by the digestive canals. Nothing tends to prove its penetration by the skin.
- e,—That everything that is contaminated by cholera discharges also becomes a receptacle from which the generative principle of cholera may be disengaged, under the influence of favourable conditions.
- f,—That in the open air the generative principle of Asiatic Cholera rapidly loses its morbid activity, and that this is the rule.

Finally the commission adopts the following formula:

Observation shows that the duration of the choleraic diarrhœa called premonitory, which must not be confounded with all the diarrhœas which exist during the time of cholera, *does not extend beyond a few days.*

Facts cited as exceptional do not prove that the cases of diarrhœa prolonged beyond that period, belong to cholera, and are susceptible of transmitting the disease, when the individual affected has been withdrawn from all cause of contamination.

On the subject of prevention the conference says: "It seems to us that in the case of ships arriving from infected neighbouring ports, the following measures might advantageously be adopted:

1st. No person should be allowed to land previous to efficient inspection by medical men appointed for the duty.

2nd. The healthy passengers should be removed from the ship, and isolated for a period, which need not exceed five days, at the end of which time they should again be inspected, and if found without choleraic symptoms, should receive "pratique."

3rd. All persons with cholera or diarrhœa, at the time of arrival, or at any period of detention, should be *isolated from the rest and removed to a separate place*. Cases of diarrhœa should be detained under observation until the diarrhœa is cured, or until the medical officer in charge is satisfied from the features of the disease, that it is not of a choleraic nature.

We think that the *time of observation in such cases of diarrhœa should not be less than eight days* from the commencement of the seclusion. The above measures would require the following conditions at each quarantine station :

1st. *An establishment for the reception of the healthy, capable of completely isolating successive parties of arrivals in distinct classes, well separated from each other.*

2nd. *An establishment for the reception of the sick, with an isolated convalescent establishment.*

Each of the above should be provided with latrines, having moveable receptacles, which should be daily emptied and purified.

3rd. An establishment for the purification of effects

The establishments would certainly be large, but a small number of them placed on a few points of the coast would suffice, if all ships carrying passengers from infected ports were made to pass through them before receiving "pratique."

There are one or two conclusions in the foregoing report from which I dissent, and for which no fact within my knowledge and experience forms a basis, but, as they err (if they err at all) on the side of safety, they have my hearty approval.

I trust I shall not be charged with egotism if I call attention to the extraordinary resemblance that my plan of quarantine for cholera, bears to that since suggested by the Cholera Conference. This I merely mention to show the identity of the facts from which we have both made our deductions, and by which both have arrived at the same conclusions.

By my plan, four days is the period I have fixed for the isolation of the healthy before admitting them to pratique, and the Constantinople Commission says: "It need not exceed five days." The other details and mine are identical.

I am more than ever impressed with the conviction of the soundness of the principles on which my plan is based, and satisfied that whatever plan of quarantine for Asiatic Cholera may be ultimately adopted *on this continent*, UNIFORMITY IS ESSENTIAL TO EFFICIENCY. It can be of little use that any province or state should adopt a rigorous and absolute quarantine at its seaports, if a neighbouring state or country, through diversity of laws

or opinions, adopts another and perchance looser system. How would the safety of your house be affected against intruders, if you were to bar the front entrance, and leave the back door open? Precisely so would it be with a partial or sectional system of quarantine; and the horrors of the past would be re-enacted in all their intensity, by such a system. Any port on this continent might again become the door of entrance to this dreaded scourge, which crept up the St. Lawrence by the gate of Quebec in 1832, carrying death and dismay through almost every section of British America and the United States.

Finally: From a special study of the history of this disease, extending over a period of thirty-five years, and an extensive practice and careful observation and investigation of facts during six distinct visitations of the scourge, I have arrived at the following conclusions: That fearful and fatal as the pestilence frequently is, it is a most manageable and controllable disease if properly handled; and, when its germ has been thoroughly exterminated—"stamped out"—*the uniform application of scientific preventive and hygienic measures will render Asiatic Cholera an unknown disease to future generations on this continent.*

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### LONDON CORRESPONDENCE.

In our last letter published in your October number, by a typographical error, the Dean of Cork is called the Dean of Carne, which we now rectify, because, since our letter was sent, he has been made Bishop of Peterborough, an elevation which he has well deserved from his great literary acquirements.

We have a few words to say of the doings of the International Congress of Prehistoric Archaeology and Anthropology, which recently met at Norwich. This great body meets annually in some one of the European cities; last year it met at Paris, this year at Norwich, and next year it will meet at Copenhagen.

The communications before it have a great deal to do concerning man and his works in prehistoric times, and the variety in the subjects selected for discussion is quite curious and always interesting. Caverns and their contents, sculptured rocks of ancient times, antiquities of the South Sea Islands, ancient modes of sepulture, flint implements, distribution of the ancient races of mankind, antiquity of iron works, and animals associated with prehistoric man, will furnish a good idea of the work done by the congress. Into none of these will we attempt to enter, unless

one, a paper by Professor Huxley upon the *Distribution of the Races of Mankind*, as bearing upon their antiquity. Supposing, he said, that all the various forms of mankind were gathered together in one place, and supposing we had in the first place to pick out all the great groups, he thought we would reduce them to four. There is that form of mankind which he should call "Australoid," because he believed the best type of this form of mankind is to be found in Australia at the present day. It consists of a dark complexion of various shades of chocolate, black eyes, wavy and silken hair, and a long skull. The *second* type is the "Negroid," men with dark skins varying from dark brown to what we call black—though true black was a great rarity, with invariably black eyes; dark hair, usually black and also crisp, or what we call woolly. The skull is also a long one, though different in many respects from the Australoid. The *third* group is the "Mongoloid," with a complexion varying from a yellowish down to an olive tint; with black eyes, and black hair, which is usually straight and lanky. This group differs from the other two in the character of the skull, but the characters of complexion, skin, and hair, are more permanent and of more value than those of the skull. The *fourth* type is one extremely common amongst ourselves, especially in the eastern and southern counties of England, and also in Germany and the Slavonic countries. It is what is known as the "Blonde" type, but sometime ago he proposed the name of "Zanthochroid." These people have fair delicate skins, through which the blood shows, imparting that colour which we admire so much; yellow hair, and blue eyes, and they are usually of tall stature. In this group as in the other, there is an extreme variation in the type of the skull; that is to say there may be every variety, from the long skull of the Scandinavian to the broad skull of Central Germany.

This Professor Huxley considered a convenient classification of the various groups of mankind. The geographical distribution is an extremely remarkable one. First of the *Australoid* type. The great continent of Australia is the headquarters of this type; it is not met with in Van Diemen's Land, but is in the hill tribes of the Deccan in Hindostan; also in Abyssinia and the valley of Egypt. The *Mongoloid* division is found in Central Asia, where the Kalmucs and Tartars represent the purest form of these people. They are traced westwards to Lapland, and along the whole of the Polar regions to the Eskimo. They are traced southward throughout the breadth of the two Americas to Fuego; and are the most widely distributed of any divisions of mankind. A modification of the same type is found in all the islands of the Pacific which stretch from Van Diemen's to New Guinea, and all those which lie

outside the Sandwich Islands and New Zealand. The *Negroid* type has a most remarkable distribution. All Africa south of the equator has been peopled by negroes; they are found in Madagascar and the Peninsula of Malacca; a trace in the Philippines; and entirely in New Guinea. New Caledonia is also entirely peopled by them; and lastly is Tasmania, where the people are totally different from the Australians.

The fourth or *Zanthochroid* type is to be found now all the way from the British Islands, through Scandinavia, through Central Europe, to the frontiers of China, where the people of this type are described by the Chinese historians as people having blue eyes and big noses, like the apes who were their forefathers, which Professor Huxley said was rather amusing, when we bear in mind that the Chinese have squinting eyes and scarcely any noses to speak of. This people are found at greater or less intervals throughout the whole of this area, and are traceable to the present day to Syria.

This must suffice to give a general idea of the new classification, for the consideration of the emigration of these various groups, in itself very interesting would take up more space than we could devote to it in this short letter.

When the meetings of the congress terminated at Norwich they were resumed in London for 3 or 4 days, and concluded with a *Conversazione* at which we were present, in the rooms at Westminster where the celebrated Ethnological collection of the late Mr. Christie is preserved, Mr. Franks of the British Museum being the host.

In this magnificent collection, we were much impressed with the casts of various objects discovered in the assiferous breccia in the caverns of Perigord at Derdonnes in France, by Mr. Christie, the originals of which remain in France. Among these casts were two of a fragment of mammoth tusk, with the representation of a mammoth scratched, or engraved upon it, if it may be so expressed. What better proof can be desired of, the co-existence of man with these creatures, whose existence takes us back a period of time, as stated in one of our former letters, some 30 or 40 thousand years.

Although the meetings of the medical and other societies have commenced for the winter, we cannot as yet say whether it will be a busy session or not, for everything appears unsettled and unquiet by the prospect of the forthcoming elections, in which several medical men are expected to be returned to parliament.

Last night we were one of the invited at the magnificent banquet given by the master and wardens of the Apothecaries Company, in their fine old hall at Blackfriars. The company was close upon 200, and were enter-

tained in such a manner for which the various city companies are famed. This was the annual banquet after Lord Mayor's day. At the head of the old oak wainscoted hall, were full length original portraits of James I. and Charles I., both sovereigns in their day being patrons of the Apothecaries Guild. The master is Mr. —, and entertained his visitors right royally. Notwithstanding the numerous licensing bodies here, the Apothecaries Society maintains its way, and a large number of gentlemen annually take the licenses. If Canadian graduates, whose degrees are not yet recognized here by the medical act, but will be shortly, are desirous of practising in England, for a moderate fee and an easy examination for them, they can obtain this license, and will be immediately on a par with the most favoured in the land.

London, November 12th, 1868.

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#### REVIEWS AND NOTICES OF BOOKS.

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*Conservative Surgery in cases of Severe Traumatic Injuries of the Limbs, with a Report of Cases.* By ALBERT G. WALTER, M.D.

It is always a pleasure to read a work, the writer of which has something definite to say, and who knows how to say it. That Dr. Walter has clear and well considered views, no one who reads his work can doubt. The question of antiseptic surgery is, at the present time, commanding no little attention in the surgical world. The treatment of severe traumatic injuries is receiving attention simultaneously from the first surgeons in Europe and America. The frequent occurrence of Pyæmia and death after such injuries, and amputations, has led to the consideration of the subject, with the view of ascertaining if these fatal terminations cannot be averted. Two opinions seem to prevail as to the cause of the evil. One is, that the presence of common air, in which it is believed minute organism dwells, leads to the decomposition of organic liquids and solids. The other view is, that death, and decomposition of the material, result from the injury by which crushing of the tissues had been produced. Among those who hold the former view may be mentioned as the principal one, Prof. Lister of Glasgow, and also M. Jules Guérin of Paris. Among the latter is M. Maisonneuve of Paris. Prof. Lister's method of practice is to apply carbolic acid to the lacerated and bruised wound, with the view of destroying the germs which had been deposited from the air, and which it is supposed will produce degeneration and death. When in Paris in the summer of 1867, we had the opportunity of witnessing

the mode adopted by M. Maisonneuve, which consists of a bag and tube applied to the part in which decomposing fluids are pent up, and then by suction, to remove the noxious material. He never thinks of excluding the air. At that time this eminent surgeon spoke strongly in favour of this plan of treatment. He has more recently stated that continued success attends this treatment. But in the meantime, while these European surgeons have been seeking a more successful method of treating the more severe forms of local injuries attended with wounds, the surgeons of the New World have been neither idle nor thoughtless. As a result of study and careful examination, with extensive experience, we have this valuable monograph by Dr. Walter. We feel a disposition, did space permit, to quote at length from the work; we must, however, satisfy ourselves with pointing out what seems to be the principal feature of these instructive pages. Dr. Walter discards, we think, with great justice, the germ theory and treatment based thereon by Prof. Lister. The air may be poisoned by noxious elements floating therein; but pure, unadulterated air is not only not poisonous to a wound, but salutary. And when any poison does exist in the air it proves injurious by entering the lungs, not by coming in contact with wounded tissue. The danger attending severe crushing wounds consists in the presence of lifeless organic material in the wound and adjacent tissue. This may be abundant, and if pent up, either by artificial closing of the wound, as by sutures, bandages or otherwise, or in the interstices of the bruised tissue, perhaps beneath dense fascia, then there is danger of absorption taking place, and blood-poisoning resulting. This view thoroughly accords with our own. Such being Dr. Walter's belief, he recommends strongly that lacerated and contused wounds should not be hastily closed. If there be decomposing fluids pent up, the author advises the use of the knife, making incisions sufficiently free and numerous to provide a free way of escape for the confined fluids. Then, by attention to cleanliness, by securing a free access of pure, invigorating air, he secures to the patient a far greater chance of recovering. It is perhaps in the making of these incisions that Dr. Walter is particularly original. He deserves great credit for original thought in other respects; but others were studying the same problem and had arrived at conclusions similar to his own in many respects. Maisonneuve recognized the evil of allowing these pent up fluids to remain in connection with wounds, and devised the plan of abstracting them by suction. Dr. Walter takes a more speedy and convenient way, and secures effectual draining by making these free incisions. We would here remark that we have obtained the same results by leaving open the wound, attending to the position of the injured limb,

and by judiciously and well directed pressure externally, so as to squeeze out the fluid, as one would out of a sponge; attention being given to cleanliness and circulation of pure air. We would strongly advise every one interested in the science and art of surgery, and who wishes to acquire valuable information, to procure this treatise. It can no doubt be procured by any bookseller.

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## PERISCOPIC DEPARTMENT.

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### Surgery.

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#### CLINICAL LECTURE ON SIMPLE FRACTURE OF THE FEMUR.

By JOHN ERICHSEN, F.R.C.S., as published in two numbers of the *London Lancet*. Analysis by PROF. JAMES M. HOLLOWAY, M.D., Louisville, Kenty.

Fracture of femur common. Not so important, because of severity, as from length of confinement and danger of shortening. Dissection of a few cases, shortly after death from other causes, shows: (a) upper fragment always tilted *upwards* (recumbent posture,) forwards (erect posture,) and either *inverted* or *everted*. (b) Lower fragment always drawn *upwards* (in direction of long axis of limb) and rotated outwards. *Muscles concerned in displacement.* Upper fragment—psoas-iliac, adductors; these, when cut across, caused *depression*: Obturator internus and gemelli; these, when cut across, corrected *inversion*. In another case *inversion* was corrected by severing external rotators, especially the obturator externus. Lower fragment; flexors of leg, adductor magnus and part of ad. longus, vastus externus and internus, when cut across, in the order named, gradually corrected *shortening and rotation outwards*. In these cases, the muscles causing displacement of fragments continued to manifest *rigidity* after death. “*The muscles that were uncontracted at the time of death were not contracted after the rigour mortis had passed. The others continued contracted, as they had been during life.*”

[By this paragraph the author evidently means that muscles causing displacement of the fragments of a broken bone, if not protected by proper treatment, have their characteristic function permanently destroyed, ceasing, physiologically, to be muscles.—J. M. H.]

*Treatment.*—By three methods, combined or uncombined: (a) Liston's long splint; (b) starch bandage; (c) extension by weights. All three methods act upon the same principle, viz.: gradual exhaustion.



of muscular contraction and consequent replacement of fragments in normal position. In very muscular adults, Liston's splint should be applied for a week or ten days, the counter extending band being tightened every other day. After that, substitute starch bandage and allow patient to go about on crutches. Some degree of care is required in the proper application of the starch bandage. Envelop limb with cotton batting, then apply pasteboard splints, wetted and starched, on different aspects of limb and mould them thereto by successive layers of roller bandage, thickly starched.

*Precaution.*—Fix immovably the knee and hip joints with the splints and avoid *bulky dressings* below the knee; let them be just sufficient to prevent swelling of limb and retain splints *in situ*; otherwise their weight, acting upon so long a lever, might alter direction of long axis of limb. The starch bandage causes fatigue and relaxation of muscles by circular pressure and the cotton batting increases friction between skin and dressings, thereby preventing motion. The extension by weights as described by Dr. Buck, of New York, is applicable: (a) To cases which cannot endure confinement required for Liston's splint; (b) where starch bandage is difficult to apply and insufficient to overcome muscular contraction in short, thick-set adults; and (c) when chronic ulcers or recent wounds coexist with the fracture. In such cases, extension should be made by weights from eight to fifteen pounds, attached by a cord to adhesive straps, which are applied along inner and outer aspects of leg and joined below plantar surface of foot; the cord plays upon roller fixed on top of upright at foot of bed; counter-extension is maintained by elastic perineal band, covered with domestic or flannel, attached to head of bed.

An objection to the employment of Liston's splint, urged by some, is the tendency to obliterate the natural curve of femur by making extension in the direction of the long axis of the straight splint and not of the bone involved. This, however, is a theoretical, rather than a practical objection. Any tendency to the result alleged, while the limb is supported by the splint, is compensated for by the subsequent *moulding and moulting* of the newly formed, yielding callus. This callus is sufficiently firm at the end of the eight weeks to preserve the integrity of the bone; but does not prevent the action of the muscles in restoring its normal shape. It is always important to prevent shortening, and the three methods recommended will, in most cases of simple fracture, attain the desired object. But, even when there is unavoidable shortening, in very oblique fractures of a half inch or more, the subsequent accommodation of the pelvis to such a condition will prevent limping.

For children, the starch bandage is alone sufficient, because of feebleness of muscular contraction. They should be allowed to go about on crutches after the third or fourth day, or as soon as the bandage is perfectly dry. Preference is given to starch over plaster of paris, glue, egg and flour paste, silicate of potassa, dextrine, and "other things."

NOTE.—In such cases I have found it a good plan to reduce the fracture as nearly as possible by forcible extension (with or without chloroform) and apply, without delay, the starch bandage. Until the dressing becomes perfectly dry, use Dr. Buck's method to prevent contraction. Afterward, the latter may be removed and the adult patient should be directed to move about carefully upon crutches every day, in order that the evils of close confinement may be avoided. The weight of the lower fragment, the patient being erect, affords sufficient extension to gradually overcome the remaining muscular contraction. When the starch bandage loosens, from subsidence of swelling and relaxation of muscles, it should be split open in the direction of long axis of limb, and the edges being pared or lapped, a stout roller should be applied to fix it. Fenestra can be made over the ulcers or wounds, so that they may be examined at will. My experience, however, induces the belief that these ulcers or wounds heal more rapidly when covered with a starch bandage, than otherwise; not *solely*, because of the exclusion of atmospheric air, but rather, because of the absolute rest and protection against sources of irritation thereby obtained.—*Richmond and Louisville Med. Jour.*

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EPISTAXIS—PLUGGING THE NOSE—ILLUSTRATED BY FOUR CASES

Under the Care of Mr. CROLY.

Case 1.—E. S., a female, aged 49 years, was admitted into the City of Dublin Hospital, with bleeding from the right nostril, which had continued for several days. The ordinary remedies had been at first adopted by her medical attendant, who, as a last resource, plugged the anterior and posterior nostril. The hæmorrhage was thus checked for a short time, but having recurred, she was sent to the hospital. On her admission, it was found that the blood flowed down her throat, and escaped anteriorly. The patient was much exhausted. Mr. Croly, finding that the plugs were not then effectual, considered it necessary to plug the nose again, and then proceeded in the following manner:—A piece of lint folded to the size of the last phalanx of the thumb was *stitched through its centre* with a hemp ligature, leaving *two* ends sufficiently long to pass through the anterior nostril, and one through the mouth. The

plug was moistened with muriatic tincture of iron. The operator then took a gum-elastic bougie (No. 2) and transfixed its point with a needle armed with ligature-silk, and tied a loop on it; and (having removed the plugs which were first introduced) passed the bougie straight along the floor of the nostril; its point appearing behind the velum palati was seized in a long forceps, and drawn forward through the mouth. The double ligature of the plug was passed through the loop and tied. The bougie was withdrawn through the nostril, and the plug, held between the ends of the first two fingers, was guided behind the velum and wedged into the posterior nostril by the point of the index-finger of the left hand. During this stage of the operation the hæmorrhage was alarming, and blood was coughed out violently into the operator's face. The patient struggled, and tried to close her mouth. The two strings which were drawn through the anterior nostrils, were untied, and held apart, and the nostril plugged from the front with pieces of lint introduced by a director, and secured by tying the double ligature tightly. The ends of these strings, and of that through the mouth, were fastened to the cheek with adhesive plaster. The hæmorrhage was thus fully controlled.

On the fourth day pus having appeared at the nostril, a solution of chloride of zinc in cold water was then injected into the nostril, and when the plug was sufficiently softened it was removed. By pulling the string through the mouth, the posterior plug was easily detached.

During her stay in hospital the patient was given light nutritious diet, and muriated tincture of iron was prescribed internally. Under this treatment she perfectly recovered, and was discharged from hospital in a few days.

*Case 2.*—M. M., aged 60 years, was admitted into the City of Dublin Hospital for excessive bleeding from the left nostril. The patient, who presented a pale anæmic appearance, stated that she was attacked a week previously with the bleeding. The usual remedies were first tried—and having failed, the anterior nostril was plugged with lint. This did not succeed in arresting the hæmorrhage.

Mr. Croly plugged the nose by means of Belloc's sound. Pus appeared at the orifice of the nostril; on the fourth day the plug was removed, and the nostril syringed with "Condy's Fluid;" the patient was discharged quite well in a few days.

*Case 3.*—A. B., a pensioner, 60 years of age, came under Mr. Croly's care for epistaxis, which continued for several days, and resisted all treatment. The patient was very much debilitated, the posterior nostril was plugged by means of Belloc's sound, and the hæmorrhage controlled.

*Case 4.*—Mrs. —, aged 36 years, in the last month of pregnancy

(one of the causes of epistaxis stated by the writer), was seized with bleeding from the right nostril. The ordinary modes of treatment failed to arrest the hæmorrhage, which weakened the patient, and alarmed her very much. She was directed to snuff up a powder consisting of alum and sulphate of zinc. This having proved ineffectual, and the patient becoming very weak, Mr. Croly plugged the nose from the front by the late Surgeon Smyly's plan—viz., slips of lint a foot long, and half-an-inch broad, were introduced into the nostril by means of a gum-elastic catheter until the cavity was completely filled. The hæmorrhage was thus checked.

Mr. Croly made some practical remarks to the pupils on this important form of hæmorrhage, its various causes and modes of treatment, and pointed out the propriety of not interfering in certain cases in which the bleeding may be salutary, and impressed on them that plugging the nose should not be resorted to until the ordinary methods had proved unsuccessful.

These modes are raising the arm or arms above the head (as recommended and ingeniously explained by Dr. Negrier), cold applied to the forehead and nape of the neck, dry cupping the same region, placing the feet in hot water, directing the patient to snuff up astringent powders, &c.

He then detailed the several steps of the operation of plugging the nose, either by means of Belloc's sound, or an ordinary gum-elastic bougie or catheter, or by the method recommended by the late eminent Surgeon Smyly, of this city, which proved so successful in case 4.

Mr. Croly explained further the advantage of making the plug according to the plan described in case 1, which consists of stitching instead of tying it; thereby avoiding the hour-glass shape which the plug assumes when tied, and allows the blood to escape into the throat in consequence of not filling accurately the posterior nostril. He also advised that the plugs should not be removed until signs of suppuration are manifested by pus appearing at the orifice of the nostril, lest hæmorrhage should recur.

Mr. Croly also reminded the class that plugging the nostril is not only a troublesome operation, but very distressing to the patient; and is not unattended with dangerous results. Tetanus and pyæmia have sometimes followed, and the posterior plug in some cases has fallen down on the windpipe; this dangerous occurrence is to be avoided by tying the double strings *tightly* on the anterior plug, and making the posterior plug sufficiently large. The string through the mouth will be found most useful in withdrawing the plug from the posterior nostril, and will not produce the irritation alluded to by writers, if properly secured by plaster on the cheek.—*Medical Press and Circular.*

## ON THE OPERATION FOR STRABISMUS AND ITS AFTER TREATMENT.

By J. G. HILDIGE, F.R.C.S.I.

Notwithstanding the almost mathematical accuracy with which the operation for strabismus has been treated of by German and English surgeons, it occasionally happens, no matter how carefully the operation may have been performed, that the degree of parallelism resulting from it is far from satisfactory, the eye either returning to its former position or tending to wander in the opposite direction. A secondary operation is just as liable to be attended with similar results, besides being in no small degree irksome to both patient and surgeon. Having experienced this in my own practice I have long been anxious to discover a means of obviating it, and I now propose to describe, as briefly as possible, a mode of treatment which has lately suggested itself to me, and which I have found to be attended with most excellent results. It consists in drawing with an extremely fine point of nitrate of silver perpendicular lines of about one-fourth of an inch in length between the angle of the eye and the margin of the cornea, on the side of the eyeball opposite to that towards which the eye tends to wander. For instance, if the internal rectus be the muscle which has been detached (strabismus convergens), and if the eye some time after the operation shows a disposition to return to its former position, I draw the lines, two at the utmost on the conjunctiva, between the external angle of the eye, and the margin of the cornea; on the other hand, if the eye wander too much outwards after the detachment of the muscle and does not become parallel with the other eye after the expiration of the period allowed for the subsequent contraction of the wound, the lines are drawn on the nasal side of the eyeball, and in the same position as on the opposite side.

In order to explain more fully this mode of treatment I shall give the details of one or two cases to which it has been applied with the best possible result.

*Case 1.*—Miss de M——, æt. 10, of Kilkenny, was operated on by me for strabismus convergens in the month of May, 1866. The affection had come on shortly after birth; the child's mother, however, did not remember the exact period when it was first observed. The right eye was turned inwards to the extent of about two lines, and its vision had become impaired from disuse. I operated on both eyes at the same time, detaching the muscles to such an extent as to allow about one-quarter of a line for the subsequent contraction of the wound. At the end of a week the left eye had become nearly straight, but the right one had become more

divergent, so as to form an external strabismus of about one line and a-half.

As there was now little or no probability of the contraction of the wound acting to any extent on the position of the eyeball, I determined to make a trial of the nitrate of silver. I drew one or two lines with an extremely fine point of nitrate of silver, midway between the internal angle of the right eye and the margin of the cornea, and directed the patient to be kept in a darkened room, with cold applications to the eye. On the following day there was a marked improvement in the position of the eye, and it was only necessary to repeat once more the application of the caustic, when the eyes became perfectly parallel, and remained so. I saw this young lady about four months afterwards, when, to use her mother's words, no person would have known she had ever squinted.

*Case 2.*—Miss H., æt. 12, of Rathgar, was operated on for strabismus convergens on the 22nd of May, 1867. Her eyes became parallel about ten days after the operation, and shortly afterwards she was allowed to return to her daily avocation.

Three weeks elapsed before she again presented herself, when I found, on examining her, that her left eye had returned to very nearly the same position as it had occupied previous to the operation—that is to say, turned inwards to the extent of about one line and a-half. She stated that she had been using her eyes pretty freely since I had seen her, and that her left eye had gradually commenced to squint again. I drew one line between the external angle of the eye and the margin of the cornea, and gave her the usual directions to abstain from using it, and to remain as much as possible in a darkened room for a few days. At the end of two days the eye had altered its position to the extent of one line, and, as well as I remember, it was not necessary to use the caustic a second time, as the eye became perfectly parallel, and remains so to this day.

I have treated other cases of failure of the operation for strabismus by this method, and my experience of it has convinced me that if it be resorted to within a short period after the operation, and if there be no incongruence of the retina present, it is almost certain (humanly speaking) to be attended with success. With regard to its mode of action, I am disposed to think that it is not wholly mechanical; in fact, that the psychical element, as it is denominated by our German brethren, is brought more or less into play; be that as it may, it has the advantage of being a simple and—according to my experience—a most effectual remedy, and unattended with any risk whatsoever.—*Medical Press & Circular.*

## HOLT'S OPERATION FOR STRICTURE: DEATH FROM PYÆMIA EXHIBITING REMARKABLE FEATURES.

Under the care of Mr. HAMILTON.

Although the treatment of stricture by Holt's method is now generally allowed to be a valuable addition to the surgery of this disease, still it cannot be denied that it is attended with some risk, and in the adoption of a practice which has many strenuous advocates, the observation of unfortunate cases must afford a valuable lesson.

T. F., æt. 62, a pensioner, of dissipated habits, was constantly in the habit of coming to hospital with retention of urine, on exposure to cold or the commission of any excess. On some of these occasions considerable difficulty was experienced in passing a small catheter. A very tight stricture was found at the anterior part of the bulbous portion of the urethra. The difficulty of introducing instruments was frequently much increased by spasm, and the mucous membrane was always in an irritable condition. Having often expressed a desire for some permanent relief, it was determined to adopt the method of Holt. He was accordingly kept quiet in bed for some days, and the urethra dilated with cat-gut bougies, until Holt's dilator could be readily passed into the bladder. The operation was performed on Saturday, June 27th, the strictures having been burst. A catheter, No. 8 size, was passed into the bladder; the patient was treated with quinine and opium, as directed by Mr. Holt.

June 28th.—He has had some shivering during the night; he complains of severe pains in the lower limbs, with hyperæsthesia and partial loss of motor power; passes water freely and without pain; there is no tenderness or fullness in the perinæum; pulse 120, and feeble. Ordered wine and beef-tea.

29th and 30th—Appears better, but still complains of soreness and complete loss of power in the lower limbs; no rigors or sweating; no tenderness in the perinæum.

July 1st.—Very much worse; the pulse at wrist scarcely perceptible: complains of pain and powerlessness of the lower extremities: tongue dry and brown: the surface of the body is covered with an eczematous rash, having a dark areola; the mental faculties are perfectly clear: he complains of irregular pains in the chest and abdomen. The respiration became very difficult some hours before death, which occurred at ten P.M.

*Autopsy, twelve hours after death.*—The eczematous eruption still remains on the surface. The inferior wall of the urethra has been burst at the point of stricture into the corpus cavernosum. Some pus issued from the bottom of the fissure on pressure. The cavity of the bladder was small, but its coats immensely hypertrophied, with numerous sacculi

leading off from it; the ureters were much dilated: the kidneys tolerably healthy; the surface of the lungs was thickly studded over with an eruption identical with that on the surface of the body; the liver and other intestines were likewise spotted in a lesser degree; no deposit of pus could be discovered in any part; the muscular system seemed perfectly healthy; no abnormal appearance of the joints was discernible. The features of this case are interesting in some respects. The fatal termination must be attributed to a form of systemic infection, but there are many peculiarities in the symptoms, the paralysis of the lower limbs, the sensibility of the skin and muscular pains, the absence of rigors, sweating, or delirium, the appearance of the eruption on the body and viscera, are all uncommon. There can be little doubt that pyæmia is the chiefest source of danger in this operation, and the occurrence of suppuration in such a structure as the corpus cavernosum, must be a condition specially favourable for its development.—*Medical Press and Circular.*

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## Medicine.

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### ON MITRAL CONSTRICTION.

Recent medical observation and research has done much to facilitate the diagnosis of constrictive narrowing of the mitral orifice from mere mitral incompetency with regurgitation of blood back from the ventricle to the auricle.

Some may think it a matter of needless refinement to take pains to distinguish between these two morbid states of the mitral aperture, but this is not the case, inasmuch as useful therapeutical rules depend on the correctness of the diagnosis; hence, although the question is often one difficult of solution, it is one worthy of some time and attention on the part of the physician. We proceed to lay down what appear to be the best guides to the diagnosis of a constricted mitral aperture, and then to speak of the prognosis and treatment of these cases.

The onward passage of the blood from the left auricle into the ventricle through an orifice that is abnormally constricted and narrow is frequently attended with a murmur having certain characters which distinguish it from the murmur of mitral regurgitation.

The murmur of *mitral regurgitation* is distinctly systolic, it is loudest at, above, and rather to left of, the apex beat, losing quickly in intensity and pitch on passing to the cardiac base. At the inferior angle of the left scapula, and beside the dorsal vertebræ, from the sixth to the ninth,



the murmur is more or less clearly audible, as we should expect, remembering that this is a backward, not a direct, murmur, and is caused by blood flowing back from the ventricle into the auricle.

The murmur of *mitral constriction*, on the other hand, is a direct murmur, and occurs at the time when the ventricle is filling from the auricle, hence it is not systolic in rhythm, nor is it diastolic, as sometimes stated in books, but it is post-diastolic, or pre-systolic, and this last seems the better term, since in a well-marked case, this murmur is caught just before the systole, running up as it were to the first sound. When strongly developed, it may completely cover the second sound at the left apex, but it is not often loud enough to do this.

With respect to situation, this murmur is loudest at, to right of, and above the apex beat; it is very soon lost, passing upwards and towards the left, and is not audible at the inferior angle of the scapula.

When the murmur is uncomplicated with the murmur of mitral regurgitation, and it may occur where the mitral valve is quite competent, loudness of the second sound over the pulmonary artery is a sign that, according to Stroda, the case is one of narrowing of the mitral orifice, rather than of mere roughness of the surfaces.

Reduplication of the second sound at the base may be noted, and is due to want of synchronism between the actions of the two sides of the heart.

In character this murmur has been described by Dr. Flint, of New York, as "somewhat rough, resembling the sound produced by throwing the lips into vibration by the expired breath. When this character of sound is strongly marked I have called it a *blubbering* murmur. This character of sound I suppose to be due to the vibration of the curtains which compose the mitral valve. It is heard with its maximum of intensity around the apex of the heart. Often it is limited to a small space. It is propagated best in a direction from the apex, anteriorly towards the median line, not so well in an opposite direction. Sometimes it is so loud as to be heard over a considerable area. It is pre-systolic in rhythm, and I have three cases now under my care in the Bellevue Hospital presenting this murmur. Its presence denotes, with some exceptions, the existence of mitral obstructive lesions; but its absence is no proof that such lesions do not exist. It is present in only a certain portion of the cases in which obstrusive lesions exist; and it is especially apt to be present in one variety of these lesions, viz.—when the mitral curtains become adherent at their sides, and form what is known as the button-hole contraction."

Dr. Flint observes further, that this mitral direct (pre-systolic) mur-

mur may be caused by aortic regurgitation, even when the mitral orifice is quite normal. He explains this by the fact that the aortic regurgitant current fills the ventricle just at the time when the mitral direct current is doing the same thing, the regurgitant aortic current by distending the ventricle approximates the curtains of the mitral valve, and then the incoming blood from the auricle throws these into vibration, and so causes the murmur.

I have not myself had opportunity to verify this observation of Dr. Flint's, but it appears to me of interest in reference to the occurrence of "tactile thrill" or "tremor" in connection with the murmur of mitral constriction. When the mitral murmur is caused in the way alluded to by Dr. Flint, the probability is that the eddying together of the two currents (the aortic regurgitant and the mitral direct) in the ventricle would produce thrill felt by the hand applied in the usual way over the heart.

Those who, like Dr. Peacock and Dr. Sutton, have lately drawn attention to this mitral constrictive murmur recognize tactile thrill as a common, and yet by no means a constant, sign of this form of valvular disease, and to ascertain under what conditions this thrill does or does not occur, is a subject for further observation and inquiry.

The pre-systolic mitral murmur may exist by itself and with a perfectly competent mitral valve, but often it co-exists with a mitral systolic regurgitant murmur; then its diagnosis by physical signs with any certainty is impossible.

The points most likely to guide us are to watch the rhythm of the murmur while the pulse is felt in the carotids by the finger; to examine for thrill over the ventricle, and to remember that the effect of the constrictive murmur is to diminish the amount of blood that passes into the left ventricle, so that the chief amount of action will be found on the right side of the heart, a significant fact pointed out by Dr. Peacock in the *Medical Times* 1867, p. 131.

With respect to the effect of a constricted mitral aperture on the general circulation it may be stated that they resemble in a measure those of mitral regurgitation.

The left auricle, having to act with extra power, becomes hypertrophied and thickened; at times a notably dull spot may be found at the left back opposite the fourth dorsal vertebra, where very marked tubular breathing is heard in consequence of the left bronchus being compressed by the enlarged auricle, and, in regurgitant disease, the murmur is distinct at the same spot.

The effect of regurgitant disease on the left auricle is to dilate and

thin its walls, rather than to produce the thickening and hypertrophy which constrictive disease causes.

Be the auricle thickened and hypertrophied, or be it dilated and thinned, the lungs are sure to suffer; dyspnœa, cough, with bloody expectoration, and in bad cases, pulmonary apoplexies, are the results, but they do not come on so fast in mitral constrictive disease as they are apt to do in regurgitant disease, nor yet does dropsy of the extremities so soon make its appearance. The pulse, in mitral constriction, is small but regular, the face pale rather than livid, and the appearances those that betoken an imperfect distribution of arterial blood over the system.

I now subjoin a few short notes of a case to illustrate the statements that have been made.

The case was marked down in my note-book as an instance of mitral constrictive disease in August last, and the patient is still under observation.

Eliza W., æt. 23, first seen August 5th, 1867. Been ill between five and six years since she had rheumatic fever. She now feels very weak, has cough, dyspnœa, palpitations, and frequent attacks of hæmoptysis. She looks pale, rather thin. Now and then has noticed very slight œdema of ankles; pulse 112, remarkably small, not hard, regular; chest well-formed, sounds well; breathing harsh at both sides, with rhonchal sounds over left; heart's impulse not extended, scarcely felt at xiphoid cartilage; at apex and to right of it a short murmur inaudible at base, and inferior angle of left scapula. This murmur seems to precede the first sound of the heart, and was noted in August as pre-systolic. Under the influence of tr. ferri., great amendment took place, and of late there has been no hæmoptysis.

In this case the symptoms dated from an attack of rheumatic fever five years previously; since which time the chief complaint was of great debility, with now and then hæmoptysis, the patient looked weak and anæmic, had no dropsy and no certain signs of phthisis, the pulse was very small and regular, and the interval before the ventricular systole was occupied (as I judged by several auscultations) by a murmur. The second sound over the aorta was weak, and the right heart did not seem to suffer much. Under the influence of steel much amendment took place.

From all these circumstances I judged the case to be one of narrowing of the mitral orifice, not to any great degree, for the pre-systolic interval was not unduly prolonged, as it is when the channel is very narrow, and the ventricle therefore long in filling, neither as yet was the right heart notably involved, hence it seemed a case that might be viewed, as the event proved, hopefully.

To conclude with a word on treatment. In cases of constricted mitral this should be pretty uniformly on the tonic plan. Good diet with moderate allowance of stimulants, and twice a day from 10 to 20 drops of tinctr. ferri in water after food. By such measures we give power to the left ventricle and enrich the blood. The iron may be changed now and then for quinine or bark, for a time, but I believe the best results will be obtained by a prolonged course of the chalybeate in small doses in simple form, and always administered soon after a meal.

Digitalis is not to be relied upon in cases of pure mitral constriction; it is, indeed, more likely to do harm than good, by enfeebling the power of the already poorly nourished left ventricle.

In mitral regurgitation, on the other hand, digitalis is invaluable for the relief it affords, while chalybeates very often embarrass the circulation, increase the regurgitation, cause hæmoptysis, and have therefore to be abandoned.—*Medical Press & Circular.*

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#### A NEW AND EFFECTIVE METHOD OF TREATING PHTHISIS PULMONALIS.

Dr. Carl Both, Boston, Mass., has written a monograph, in which he pronounces the curability of consumption with the greatest confidence, through *artificial calcification*. It is a practical application of the cellular pathology, announced by Virchow; and the author's theories may be given in his own words:

“As a nation consists of millions of single individuals, each holding a superior or inferior position, each dying and being replaced without injury to the whole, so is our body a commonwealth of cells, each of which has its office; each may die and become replaced by another. As a statesman watches over each individual, and tries to improve each for the benefit of the whole, so the physician should know all cells of the body, their office, and their place. He should cause their removal in case of unfitness or decay, and prevent such cells as do not fit its general structure from entering the body.”

The cells composing our body live and are sustained by the food we eat, and if we cut off our food, we cut off the nourishment of the cells. By giving different food, different effects on the cells are produced. The blood requires lime for calcifying displaced or degenerated cells by depositing that substance in them.

He wishes it to be understood, that tubercles in the lungs are composed of, and originate from blood globules which have escaped out of the general circulation, through the bursting of an obstructed capillary vessel. That this obstruction takes place where the respiration is sup-

pressed. From this the conclusion is drawn that tubercles can nowhere originate in the lungs, except in those parts where respiration has been oppressed or has ceased.

The natural healing process consists in the calcification of the diseased part, so that they appear as if made of chalk, though the original cells and tissues can yet be detected by the microscope. It is evident, therefore, that in such cases, the blood must have been able to furnish a considerable quantity of lime, to provide for the calcification of the decayed parts. His treatment is divided into three sections, each of which finally support the other in their effects:—

1st.—*The extension and cleansing of the lung by pressing air into it.*

2nd.—*The introduction of lime into the blood in sufficient quantity for the calcification of the tubercles; and the purification of the blood by higher oxidation.*

3d.—*The determination and regulation of a diet to suit the particular form and degree of disease.*

The direct treatment of the lungs consists in pressing the air into them by natural inspiration, powerfully stimulated by certain muscular exercises which are calculated to effect this object. If, in the case of a collapsed lung and chest, the pressure of air in the lungs is increased, that organ and the thorax will necessarily be extended; and the air will pass gently and gradually into the small bronchi. The air vesicles and obstructed bronchi being opened, the pus and mucus contained in them will be expelled by the increased ciliary motion, by the revolving air, and by the action of the cough. At the same time the capillary circulation will be increased, diosmosis of the cells renewed, and many of them rescued from fatty degeneration and decay.

To increase the nervous action of the lung, and to produce at the same time an increased pressure, tension of the respiratory muscles must be resorted to, as a pumping force on one side, and as an irritant on the respiratory nerves by reflex irritation on the other.

To demonstrate the result the following practice will be found of service: Let a person rest the whole of his weight on the ends of his toes and fingers in a horizontal position. He will find, on rising, that he must take larger and more forcible inspirations than were otherwise possible. By means of the forced inspiration effected in this way, air is driven into the diseased part of the lungs, and distends them in consequence.

The treatment of the blood consists, first, in purifying it from those substances which cause the profuse perspiration. The food is divided into two classes, respiratory and plastic. The first is that which contains

no nitrogen. The second is that which does contain nitrogen, and which replaces the materials consumed by the action of the body.

The treatment of the blood consists, second, in the introduction of *phosphorus* and *sulphur*.

Having provided for the introduction of sulphur and phosphorus into the blood, we are, third, to obtain a sufficiency of *lime*, *silica*, and *magnesia*.

These materials are abundantly found in the hulls of oats, barley, wheat, and rye; but in the early stages of the treatment these cannot be readily digested. Extracts of herbs and plants, known to be rich in these three substances, such as *Triticum repens*, *Achillea Millefolia*, *Marrubium vulgare*, *Leontodon taraxacum*, &c., serve as a proper substitute. The general rule for the administration of food, in every case, should be the following: to adjust the quantity given to the amount of oxygen to be absorbed. For *respiratory* food, make use of whey, freshly made of boiled milk from which the caseine has been separated by adding a little cream of tartar; malt, sugar, honey, fresh butter; in the spring and summer, milk, after it has become thick by the formation of lactic acid. For *plastic* food give Liebig's extract of meat, when the digestion is very bad! Raw meat, chopped fine, given in the form of a salad, is excellent. When the digestion is good, beef, mutton, game, and fresh fish, are the best articles of food.

The bread should be made of rye meal and corn flour (not sifted too finely). Sago, cracked wheat, farino, rice, corn and oatmeal, tomatoes, and all kinds of fresh and acid fruits, may be given as the case requires it.

A detailed statement is added of the history and treatment of twenty-one patients, between the ages of nineteen and forty-seven, who have been benefited, or entirely cured; with the exception of those who had diseases of the bowels. The author believes that by following the method described, every tubercular affection of the lung can be arrested without fail—only there must not be large open caverns.—*New York Medical Record*.

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#### THERAPEUTICS OF PAIN.

Professor William A. Hammond, of Bellevue Medical College, New York, in his lecture on the above-named subject, reported in the *New York Medical Gazette*, appreciates the value of various drugs as follows:

1. In nervous headaches.

*Oxide of zinc* is of great value: ordinary dose two grs. three times a day after meals: maximum dose five grs. It is best given in form of pills.

*Nux vomica* is preferable to strychnia. The dose is  $\frac{1}{4}$  gr. after meals. If the patient is chlorotic it is well to combine a grain of ferri redact. and  $\frac{1}{2}$  gr. sulph. of quinine.

*Bismuth*, in the form of subcarbonate, will often take the place of oxide of zinc. Dose, two grs. after each meal. Bismuth probably assists digestion more than any mineral tonic, and is of use when there is gastric disturbance.

*Bromide of Potassium* is serviceable when the nervous system has been irritated; when exhausted it does harm.

*Bromide of Ammonium* is similar to the brom. of potas. in its action; dose need not be so large. Dr. H. often uses both combined.

*Opium* and its preparations are rarely of value in this disorder. If used the hypodermic method is best.

*Narcein* was brought to the notice of the Academy of Medicine, Paris, a few years ago by Claude Bernard. Dr. Hammond refers to the unfavourable notice of this article by Dr. Da Costa, but still thinks that given in large doses it has a decided hypnotic effect.

*Phosphorus* is very useful in all forms of nervous headache. It is difficult of administration, and leaves an unpleasant odour about the person. The phosphates do not produce the effects of phosphorus. The best results are obtained from phosphoric acid dilute, in doses of thirty minims largely diluted.

*Arsenic*, as a nerve tonic, stands next to zinc in value. Fowler's sol. has generally been used, but of late the arsenious acid has been given in doses of about  $\frac{1}{8}$ th of a grain; particularly in cases of hallucination dependent on exhaustion.

As to the value of *Galvanism* there are two very diverse opinions: one that it is useless; the other that it is nearly a panacea. The truth lies probably on the middle ground. We cannot act directly upon the brain, to any considerable extent, by the *induced* current or by reflex action. Dr. H. advises always the *constant current*; being careful to avoid too great intensity lest amaurosis be produced.

## 2. In the treatment of *Neuralgia*.

*Belladonna*, although at one time much overlauded, is a very efficient drug. Dr. Hammond has not used atropia often, as the dose is difficult to graduate. The use of belladonna is chiefly to change the habits of the system. You may begin with doses of  $\frac{1}{4}$ th grain of the extract, and increase as necessary.

*Hypophosphites* are useful; may be given in doses of from ten to twenty grains. They act by setting free phosphorus in the stomach.

*Hypodermic Injections of Morphia* may be used during the paroxysm. In their use avoid the face; a good point is the inside of the arm.

*Aconite* is next in value. Simply rub the tincture upon the painful part until a pricking is felt. The action is often very powerful. Dr. H. once caused temporary paralysis of the arm in a lady by the too free application of the tincture.

*Chloroform* may be used externally, internally, or by inhalation not carried to insensibility. Repetition of inhalations may break up the paroxysm.

## Midwifery and Diseases of Women and Children.

### RARE CASE OF MIDWIFERY.

By H. H. LOWRIE, M.D., of Plainfield, N. J.

The following remarkable case of midwifery chanced to come under my observation while practising in Washington City, D. C., and thinking it worthy of note, I give you a brief sketch of it.

Mrs. L. D., æt. 32, the mother of three fine healthy children, was taken with labour pains December 30th, 1863, at noon; and as she had generally got along without a doctor, she did not send for one at this time. The membranes were ruptured after a few pains, and the liquor amnii passed off in large quantities. The day passed by, and night came, but with no prospect of delivery, although the pains were still violent. The night passed, but there were yet no signs of the birth of the child.

December 31st dawned and declined without delivery; and at noon of January 1st, 1864, I was summoned to her. I found her lying upon her bed, very much prostrated from the pains and want of sleep; pulse quick, and countenance ghastly. I ascertained that her bowels and bladder had been emptied regularly up to the time of labour-pains coming on, and that she had enjoyed perfect health up to that time.

I made an examination, and at once discovered the left shoulder presenting. Between the pains I endeavoured to introduce my hand, but without success. A few moments after this the arm and hand of the fetus protruded. You may imagine what a case I had to deal with, membranes ruptured forty-eight hours before, waters all discharged, and the uterus still contracting powerfully. I immediately administered chloroform, until the whole body seemed relaxed, and the uterine pains somewhat checked. I now returned the prolapsed hand and arm, and endeavoured again to find a foot. It was impossible. The pains had continued for such a length of time, *without intermission*, and the child was so packed down between the pelvic bones, that the introduction of the hand was impossibl. Thinking nature could do no more than she



had done, I dispatched a messenger for my old friend and constant adviser, (now the late) Dr. S. C. Smoot, asking him to bring his Obstetrical Instruments, but the message being miscarried, the doctor came empty handed. I again administered the anæsthetic, and Dr. S. made an attempt to introduce his hand. After *an hour* passed in the trial, the Doctor was compelled to desist, with no better result than my previous one.

Our only resort now was evisceration, and this we agreed upon at once.

I remained with the patient, while Dr. S. returned for his instruments; but before his return, (which could not have been more than forty minutes), the child was passed into the world, a sight to behold! Version *did not* take place, but it advanced with every pain, the sternum gave way, and the chin and face of the child were buried into the thoracic cavity, and in this condition was delivered. We took the child afterward, and *folded* it in exactly the same manner in which it was passed into my hands, and the measurement was *about one-third more than the measurement of the head of an ordinary fetus at birth!*

The child was *dead*, of course, and had been for hours before we saw it, as we told by the appearance of the prolapsed hand and arm.

This case shows not only the powerful contraction of the uterus, but the wonderful strength of the woman, and the determination of nature to deliver unaided.

I do not hesitate to say that the administration of the chloroform was a great adjuvant to the case. It is true, we gave it for the purpose of quieting the pains and allowing us to introduce the hand, and if possible turn the child; but as we were frustrated in that, the rest, and relief from pain for an hour, was considered ample compensation for the administration. She awoke as from a sound sleep, and seemed very much refreshed.

More than ordinary care was taken in the treatment the days that followed; not a single bad symptom appeared; and at each daily visit I found her better and stronger, and in twenty days she was out of bed. Complete recovery followed, and I have frequently seen and prescribed for her since. Obstetrical writers tell us that this presentation *is not followed by delivery* without the aid of art.

A celebrated obstetrician of Dublin issued an essay in 1861, explaining the process of "*Spontaneous Expulsion of the Fœtus.*" but in all cases noted by him, the child was carried down into the pelvic cavity, and there "*spontaneous evolution*" took place, and the *feet* came down, and the remainder of the labour was terminated as in an ordinary footling case.—*New York Medical Journal.*

# Canada Medical Journal.

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MONTREAL, DECEMBER, 1868.

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## THE ONTARIO MEDICAL BILL.

The General Council of Medical Education and Registration of the Province of Ontario, have introduced a bill into the Local Legislature, the provisions of which will, if it becomes law, do much to lower the standard of Medical Education in that Province. By the provisions of that act powers are sought by some of the members of the profession in Ontario, to restore the old Medical Board under a new name. They seek to establish a central board of examiners before whom all persons desirous of practising Physic, Surgery or Midwifery in the Province of Ontario, shall appear and submit to examination before they shall be entitled to registration. All persons, no matter from whence they come, or from whatsoever college or university they hail, must as at present appear and pay fees to entitle them to registration. The promoters of this bill, however, regard the examinations of the colleges and universities in Canada as insufficient, and with pompous self-conceit deem themselves alone capable of administering the required test. Furthermore, they are endeavouring to upset an enactment which is in full force in Ontario, without going to the profession generally for their views on the subject.

We are not aware how this act will work with the local enactments in force in our Province, but we believe that without doubt the act of 1847, which has been found with us to work well, and which gives to Licentiates of our College of Physicians and Surgeons the privilege of practising in Ontario, will be rendered ineffective in that particular. This will be a manifest injustice to Lower Canada Licentiates, as all persons coming from Ontario can practice their profession in our Province, on the strength of an Ontario license. A singular anomaly in this act is that no attempt is made to legislate for Eclectics, Homœopaths and other irregular bodies who have legislative protection in Ontario, and who can (and sometimes do) pass young men, and procure for them a governor's license on payment of a few dollars, without their being obliged to

undergo any test as to proficiency, or prove that they have ever attended a single medical lecture.

We regard this measure as narrow minded and highly injudicious, and fully hope that the promoters will be removed from their present position as members of the General Council of Medical Education and Registration for Ontario. All good and true members of the profession should see to it that these men, whoever they may be, have abused their high position, having endeavoured surreptitiously to introduce into the Laws of the Province of Ontario an enactment which will disgrace their statute book. This act, if it become law as it now stands, will be in direct opposition to the report of the Committee, on Registration of Medical Practitioners, appointed by the Canadian Medical Association, which held its meeting in our city in September last, a meeting composed of all the leading Medical men in the Dominion, and presided over by the Honourable Charles Tupper, C.B. The report of the Committee was laid on the table for further consideration, but there was not a dissenting voice, nearly all the convention regarded it favourably, and that report recommends a general law for the whole Dominion, similar to that now in force, in Great Britain, whereby a general council shall be established, to possess visitatorial powers. It is not intended that they shall be an examining body, but that they shall have the power of keeping the various examining bodies up to their work, and if any one of them fail in duty or are lax in discipline, that the Council shall have the power of striking them off the list of recognised colleges or universities; and furthermore, that graduates or licentiates of such colleges or universities, shall in law be denied registration, so long as the irregularities or laxities exist. This is the general tenor of the report. We write from memory, as we have not a copy of the report before us.

In the November number of *Blackwood* will be found an interesting article from the pen of Mr. Charles Lever, entitled Medical Lectures. In the course of the article he says :

“ If there is not any class of men who contribute more unbought services to their fellow-men than doctors, there is not either any who make less parade of their accomplishment, and more shrinkingly withdraw from public gaze or public comment. Of the vast mass of topics which occupy attention in the world, few are as well, none are more, qualified to speak than physicians. It is not merely that the range of their educational course is wider than most other men's, but that their sympathies are more extended also; their daily contact with people of every grade and condition—their close relations with humanity in all its moods—and the peculiar authority they exercise, so dependent as it is on the qualities and

gifts of him who wields it—make these men a priesthood, with a confessional scarcely less searching than that of Rome itself. I have always felt that their absence from Parliament was a great loss. It is not merely that there are a variety of topics on which they could speak with authority and instruction, but that to whatever subject they addressed themselves they would bring that blended knowledge of facts and human nature, that composite structure to which science gives something and humanity more, which is sure to be of immense value in a legislative assembly."

This is most true, and if at the present time in the Ontario Legislature the profession were fairly represented, there would be little fear of a gross injustice being perpetrated through the hasty and ill-judged efforts of a few designing men; represented as a class, not as at present by a few men who are, improperly, looked upon as the mouth-piece of the profession, but who have exchanged the quiet usefulness of the physician for the noisy turmoil of the legislative hall. The effect of this act will be to force parents and guardians in Ontario to send young men desirous of entering the profession to the schools in that province. They will be unable to seek the superior advantages held out to them in other parts of the Dominion, and Montreal, with its large hospitals, will be lost to them. We would ask how will this react on the succeeding generation of medical men. If a central board of examiners is established before whom all persons desirous of registration must appear for examination, within ten years, medical schools will become as numerous in Ontario as they are in the United States, and few of them will possess the means of affording even an elementary education. This must and will be followed by the addition to the ranks of the profession in that Province, of a legion of men indifferently educated, as it will be in the interest of the several schools to ensure the success of their students. We do earnestly hope that the good sense of the members of the Ontario Legislature will lead them to throw out the bill as altogether unworthy of their consideration.

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" THE CANADA SCOTSMAN."

It has not often occurred, since we assumed the editorial chair, that we have felt ourselves compelled to notice in our columns the comments which the secular press have made upon medical subjects which have at various times absorbed the public attention. Indeed we have more than once purposely forbore, rather than raise a controversy; but the issue of the "Canada Scotsman" of the 21st of November contains such a foul slander upon the fair fame of those who occupy the position of pro-

fessors in our medical schools, as also upon the students who attend them, that to remain silent and to allow it to pass uncontradicted would be utterly unjustifiable. The article in the "Scotsman" to which we refer purports to be a comment upon the horrible case of abortion perpetrated by a Dr. McConnell a few weeks ago at Georgetown, Ont. The "Scotsman" says "medical students are everywhere notorious for their high-handed revelry and drunken orgies, and the professors entrusted with their training, far from checking these excesses, are themselves not unfrequently guilty of the same." A baser slander—whether as regards professors or students—was never penned, and we deeply regret that a paper conducted so ably and generally so moderately, should have been the means of sending broadcast over the Dominion, and even to Scotland, such an unfounded accusation. We are not going to assert that medical students are saints, but we do state it for a fact, and our knowledge on this head is perhaps a little more accurate and extensive than that of the editor of the "Scotsman," that as a body they are hardworking and industrious, and certainly do not merit the wholesale abuse which the paragraph quoted above pours upon them. That there are black sheep among them is unfortunately too true; but that a class of young men which numbers some five or six hundred in attendance upon our Canadian schools, should be held up to scorn, because of the unfortunate failing of one or two, is, to say the least, very unfair. Among a certain class of people, and it seems to us that the editor of the "Scotsman" belongs to the clan, the name of medical student is synonymous with all that is bad, especially as regards indulgence in intoxicating liquors. This is simply owing to the well known fact, that the evil doings of a few often bring disgrace upon many, especially in the estimation of those who are either too blind or too bigoted to examine for themselves. The unfortunate act which Dr. McConnell committed when in a state of maudlin intoxication, cannot, so far as we can see, be plead as any justification for such a wholesale slander as that circulated by the "Scotsman." We hardly know whether we should say one word in regard to its attack upon those gentlemen who hold the position of professors in the medical department of the various universities in the Dominion of Canada. Most assuredly they need no defence from our pen. They are all men of the highest professional attainments, and their reputation as gentlemen is only excelled by their reputations as physicians and teachers. To say they either wink at or encourage "high-handed revelry and drunken orgies" is a falsehood of the basest kind—a still baser one, to say they are themselves guilty of it. None more than they are so sensible of the great responsibility which rests upon the physician, and upon every proper occasion this

responsibility is fully impressed upon the students. The article from which we have quoted our extract is in the worst possible taste. Let us assure its author that the reputation of the professors whom he so unjustly slanders, will live long after he has been forgotten.

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Entire removal of the tongue for Epithelioma of that organ was performed by Dr. Fenwick, on Friday the 20th November, at the Montreal General Hospital. The patient was a gentleman from Canada West, who came to Montreal to seek advice touching a disease of the tongue, which had been pronounced to be Epithelioma. The operation as performed was speedy and bloodless, being that described by Mr. Nunneley of Leeds. An incision was made in the median line between the chin and hyoid bone, and the genio hyoid muscles separated. A long curved needle, to which was attached the chain of an *éraseur* was then introduced into the mouth, through its floor, and close to base of the tongue; this was pushed over the tongue as far back as possible, the tongue being forcibly drawn out of the mouth by a piece of strong thread which transfixed its substance. After applying the chain and strangulating the organ, the operator proceeded to ablate, and the organ was severed in nine minutes and a half. The case has progressed most favourably, the patient returning home, a distance of 190 miles, on the 12th day after the operation.

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#### THE CASE OF JACKSON vs. HYDE.

We give below an account of the somewhat celebrated case against Dr. Hyde, of Stratford, for alleged malpractice. Damages were obtained to the amount of \$250. It is exceedingly difficult to understand upon what grounds the jury returned such a verdict. If Dr. Hyde was really guilty, surely this sum is far from an adequate compensation for the loss the girl has sustained in consequence of his criminality. The conviction forces itself upon our mind that the jury were led from sympathy, induced by the presence of the girl, whose arm was submitted to their scrutiny, to commit a great error. Dr. Hyde was guilty or he was not. If guilty, then the small sum of \$250 cannot be regarded as a sufficient recompense to one whose welfare was placed in his hands. But surely the statement of the Judge, that "no evidence was brought forward to show the defendant was unskilful, except it might be so inferred from this case, and many of the most eminent medical men in the Province gave it as their opinion that he acted

skilfully, and that any other course might have endangered life;" surely, we say, such strong language should have secured a verdict for the defendant. Actions for malpractice have become too frequent in Ontario, and we are induced to consider the question why it is so. We shall, at another time, endeavour to reply. In the meantime, we would beg of our medical brethren to beware of the temptations to express an opinion upon the professional conduct of a brother practitioner, regarding a subject with which he can be only imperfectly acquainted:

#### A STRATFORD DOCTOR SUED FOR MALPRACTICE.

TORONTO, Monday, Oct. 26.

The case of "Jackson vs. Hyde" was specially set down for trial this morning, at the York Assizes now being held in this city, before Mr. Justice Morrison. It was an action to recover damages for alleged malpractice, and excited so much interest among the medical profession that the court presented more the appearance of a school of medicine, from the large attendance of eminent practitioners and students, than of a court of law. Hon. M. C. Cameron and Mr. R. A. Harrison appeared for the plaintiff, and Hon. J. H. Cameron, instructed by Mr. R. Smith, for the defendant. The plaintiff resides in the county of Waterloo, and the defendant in Stratford.

Mr. Harrison, in opening the case, said it was an action brought against the defendant as a surgeon, for malpractice, in amputating the arm of the plaintiff, who some six years ago had her hand crushed by a threshing machine, when she was 14 years of age. The defendant was called in, and amputated above the elbow when he should have amputated above the wrist.

John Jackson—I am father of the plaintiff. She was born Nov. 25th, 1848. In 1862 she received an injury to her hand by a threshing machine. My hired man was threshing oats, and the girl went to the barn where the process was going on, and while putting straw in the thresher, the fourth and fifth fingers of her right hand were cut off. She was then able to move her arm at the elbow, and also one of her fingers and thumb. I sent for Dr. Flynn, but he did nothing. I then sent for Dr. Hyde. He said nothing could be done till next morning. He came, consulted with Dr. Flynn, and the latter, in the presence of Dr. Hyde, said he thought he could save the forefinger and thumb, or amputate the arm below the elbow joint. I paid Dr. Hyde \$20 for the amputation, and some \$40 for visits and attendance. I have endeavoured to get an artificial arm for my daughter, but the maker of these limbs said he could do nothing till the girl attained her full growth. Two or

three months ago I sent her to Mr. Black, but he said he could not get an arm to fit.

Cross-examined—The third finger was hanging from a cord about an inch long. She lost no blood at all scarcely. She sat up all night nearly. I went to bed towards morning. Next morning her arm was scarcely swollen, and no appearance of discoloration that I could see; she had no fever, and could move her finger and thumb next morning. Do not know why Dr. Flynn did not act. It was not because the case was too serious. Dr. Flynn told me Dr. Hyde had his (Flynn's) instruments. Dr. Flynn remained till Dr. Hyde came. They told me they wanted daylight for the amputation, and could do nothing till the next morning. Dr. Flynn attended while the amputation was being performed by Dr. Hyde. I did not bring the action sooner, because Mr. Norris spoke about waiting till the girl attained her full growth. I always intended to bring an action against the doctor. Knew a person named Lozenger, but did not speak to him about the amputation being performed; nor did I speak to Gibson about it, to my knowledge.

Re-examined—I requested the doctor to save the finger and thumb if possible.

John Jackson, junior—I am brother of the plaintiff. The bones produced were taken from my sister's arm. They were buried in a box in the ground, where they remained till two or three weeks ago, when I took them out of the ground and gave them to Alexander Thompson, who has had them since.

Alex. Thompson—These are the bones I received from the last witness. It was then shortly after the accident. The little finger, third and second were removed. A tendon was hanging from the little finger. The first finger was not injured except a little scratch. The thumb was perfect. I saw her move the thumb and finger. I saw very little blood. There was no swelling. She talked freely to those about her. I heard Mr. Jackson ask for the forefinger and thumb to be saved. I was present when the operation was performed. Dr. Hyde performed it. I have known Miss Jackson for several years. Her health was always good.

Cross-examined—A portion of the bone was gone on the second finger. It was the lower portion of the hand. The hand was torn up to the wrist. I saw her turn her hand over—a portion of the palm of the hand was gone; the bones of the little finger side of the hand were gone. A portion of the bone above the wrist was bare about half an inch. Think half of the hand had received no injury.

Dr. Alex. Hill—Have been in practice nearly nine years, though only a licentiate of Canada a little over three years. Was at plaintiff's



place after the accident, having been sent for. Examined the injured limb; cannot tell accurately all I saw wrong with it. The little finger and that next were entirely taken away. One tendon with its muscular attachment was drawn out; know the thumb was there, but cannot recollect about the index finger; at the time and ever since, I said that a little above the wrist was the place where the amputation should have been performed. At the time I thought the entire hand might have been removed, though I have modified my views since. To have left the elbow joint and considerable part of the forearm would have been of considerable assistance to the girl. By the New York professors I was taught to save all of a hand and arm that I could—to use “conservative surgery”—and rather run the risk of a second amputation than cut off much at first. I observed after the amputation that the flap had been cut through in the inner side, which, of course, would retard the healing, and prevent its making so nice a stump. Some five or six days after, the stump looked blue and in anything but a healthy condition—as I supposed, in consequence of the cold application having been kept on too long; but I did not blame Dr. Hyde for this. He left the case in charge of Dr. Flynn, who carried on these cold applications so that I do not know where he would have stopped if some persons had not arrested him.

Cross-examined—The injury so far as I can remember extended about half way into the hand. The wrist joint was injured—the injury extending midway into the wrist. One of the tendons, which had been drawn out, extended quite as high as the joint of the elbow. Some of the carpal bones were gone. I was not taught that in case of such an injury the amputation ought to be performed in a part clear above the injury, so as to prevent any complication; if much crushed, I would not amputate in the soft, wounded portion of the limb; but the place of amputation would altogether depend on the extent of the injury. If there was a considerable laceration of the ligament, and the bones were badly smashed up, I think amputation above the affected portion necessary. We amputate for other reasons besides the fear of mortification. If vitality is so much depressed that a healthy, granulating surface could not be secured, amputation above the injured part would be a necessity. If the tendons were drawn out and much injured, the same course would be advisable. I cannot tell how many muscles have a common origin with the one injured in the girl's arm. Some writers give 18 and some 20.

Mr. J. H. Cameron—How many are there of each kind?

Witness—Just wait a little. Since you are so anxious to learn anatomy I'll teach you—(laughter). Witness then enumerated some of the muscles.

Re-examined—If, instead of the bone being crushed, the flesh had merely been torn off, I do not know that I would have amputated. The drawing out of a fine tendon with any portion of the muscle attached would not have induced me to do so.

To Mr. J. H. Cameron—The letter produced I wrote to Dr. Hyde. In it, I more fully set forth the case than I have done to-day; but when I wrote that I was not on oath. (Laughter). Dr. Hyde requested it as a private letter, which was not to be used in court.

Mr. Cameron—Dr. Hyde did no such thing.

Louis Hellmer—I was at Mr. Jackson's on the evening of the accident. The hand was badly broken about the wrist, but the thumb, and, I think, a finger were still on. I did not see her move them. The skin of the arm above the wrist was not broken, that I saw. I went after Dr. Hyde. He lived at Stratford, 13 miles distant.

Dr. Hall—I practice in Toronto, where I have practiced 30 years. I have heard the evidence in this case. I give an opinion reluctantly on the evidence recorded. I think I should have tried to save the thumb and finger.

Cross-examined—On the face of it simply, one would say that the finger and thumb ought to have been saved. But if the injury was such that a proper flap could not be obtained, it might be necessary to operate higher up. I could not say that the injury was not such as to render amputation necessary higher up. It is very hard to say at this distance of time, and not having seen the case, what ought to have been done; and I would volunteer the statement that in the country an operation is a very different thing from what it is in the city, where assistance can be rendered. Not having the full facts, it is difficult to judge.

Re-examined—Supposing the hand completely smashed, it might not have been necessary to amputate above the elbow. It is possible to save a limb, almost every bone of which is crushed.

Dr. Shaver—I reside in Stratford. I have been in practice since 1854. (Mr. M. C. Cameron explained to Dr. Shaver the nature of the previous evidence, as Dr. Shaver was not in court when it was given). From your statement I should hardly think it necessary to remove the arm above the elbow. I am supposing the blood vessels, nerves and arteries were all right.

Mr. J. H. Cameron—But we have no evidence of that.

Dr. Shaver—It would also depend when the operation was performed—whether there was mortification or gangrene.

Mr. J. H. Cameron—But you would not wait till the blood was thus poisoned?

Dr. Shaver—I am simply answering on the case stated me by Mr. Cameron. The rule in surgery is to save all the important parts possible. It is of great importance to amputate below rather than above the elbow where it is possible, as an artificial limb might be attached. (The bone amputated was here produced, and handed to the Doctor). The bone was not injured at the elbow. The saw should have cut the bone square, and not on a slant, as appears by the bone produced.

Cross-examined—It would make a great deal of difference which muscle was torn away. If torn away from its origin, it would have a tendency to produce a great deal of inflammatory action. There might not be much hæmorrhage. The effect of tearing away a muscle must be to injure all, as they have a common origin; but there is a good deal of difference as to whether the muscle was on the posterior or anterior side of the arm: and which it was has not been stated. The rule is to save as much as you can, and amputate above the seat of the injury. If there was swelling of the arm, there might be rupture of the brachial artery. If injury had been done internally, I am of opinion that it might be seen externally.

Dr. Canniff—I practice in Toronto. I have heard the evidence today. From anything I have heard, I do not think it was necessary to have amputated the arm above the elbow.

Cross-examined—It is quite possible the vessels may have been injured, and the surgeon attending must be the judge whether amputation is necessary or not in such a case.

Dr. King—I practice in Toronto. I have heard the description of the girl's injury. In the first place the evidence is so extraordinary that I cannot judge whether it was necessary to operate above the elbow or not, because I cannot even discover whether the tendons injured were the flexors or extensors. In the next place, if the muscle was completely torn away, which is an extraordinary thing to happen, there ought to be some appearance of it. I could give no opinion about the necessity of taking off the limb in this case without seeing it. If the amputation, supposing it necessary, was made, it would not make any great difference whether it was an inch above or an inch below. As to the small spicula attached to the bone produced, that resulted from the assistant not holding the limb firm. I cannot tell what muscles were torn away. For a physician to remember all that Dr. Hill has said, and yet forget whether the muscle was a flexor or extensor, is most extraordinary.

Cross-examined—If I had a case in which I was of opinion that sloughing would occur, I should use my own discretion whether I took the limb off above or below, even if advised contrary to that opinion by half a dozen doctors.

Norris Black—I make artificial limbs. It is a great advantage to have an amputation below the elbow, as I know of no successful invention of an artificial elbow joint. There is also some little utility in a finger and thumb preserved. There is no invention as far as my knowledge goes which would be of value to this girl.

Dr. Lawlor—I practice in Toronto and have heard most of Dr. Hill's evidence. I should say that in a case such as described, it was not necessary to amputate above the elbow. There is important evidence wanting to enable me to judge whether the amputation was proper or not. The bone is not sawn straight through, but the little projection on it is caused by the assistant not holding the limb firmly.

Cross-examined—There must have been several tendons injured. The hurt to the hand was evidently very extensive. If possible I should try to save the finger and thumb; but if necessary, in my judgment, I should certainly have operated as has been done. Suppose the forearm much injured, I should have felt it my duty to amputate at the elbow joint, though if there was no means of getting a flap, I should have gone above.

Dr. Buchanan—I practice in Toronto. If there was no sufficient injury above the wrist joint, I would try to save the finger and thumb.

Cross-examined—But if there was an injury to the other structures, amputation of the arm might be necessary.

Mr. M. C. Cameron—That is the case, my Lord.

Mr. J. H. Cameron—I submit there is no case made out. We can be responsible only in case of neglect, and no neglect has been proved in this case.

The learned Judge—The case must go to the jury.

Gideon Smith—We were thrashing oats at the time of accident. Something went wrong, and I went out to fix it. A sheaf was put in, and shortly after, hearing a scream, I went in, and saw the girl holding her arm up. I then saw she had lost her hand. I saw the bones lying on the barn floor. There were some long, middling-sized strings attached to the fingers on the floor. I did not count how many there were. Mr. Jackson told me the doctor said if the arm was taken off below the elbow it might cause inflammation and the girl might die.

Joseph Lorenger—I remember the day of the accident. My wife and I went to Jackson's before any doctor was there. I staid all night, and saw Dr. Hyde. I heard Jackson ask if Dr. Hyde could leave the finger on. Dr. Hyde said he could not do it—there was too much danger. As far as I recollect, the thumb was on and the little finger hanging by the skin. Dr. Flynn came first, but he would do nothing till Dr. Hyde

came, and Dr. Hyde would do nothing till daylight. Jackson asked me what I would do. I said I would have it taken off as quickly as I could and above the injury. Jackson then told Dr. Hyde to do the best he could for the child. The arm was swollen; but I cannot remember how far up. I saw strings attached to the fingers brought in from the barn. I cannot say how long the strings were, or how many of them there were. The girl lay in bed all night. I did not see the finger and thumb move at all.

Cross-examined—When I went to the house, the girl was lying on the bed. I do not know whether she had her clothes on. She was covered up. I did not compare the arms to see if one arm was thicker than the other.

Mary Lozenger—I am wife of last witness, and was at Jackson's house the night of the accident. I did not see the hand till Dr. Hyde opened it between 10 and 11 at night. It was bloody. The middle fingers were drawn out. I think the forefinger was away also. I saw strings attached to the fingers torn away. They were pretty long. I do not remember about the swelling. The girl did not appear faint and nervous from the shock. I saw the bone of the arm sticking out.

John Gibson—I saw Jackson some few days after the accident. I staid all night at his house, and I understood from him all the fingers were taken off, but the thumb and one finger were attached to some skin. Dr. Flynn, he said, would not operate. He also said the tendons and muscles were drawn out from the arm. Jackson said likewise that the arm was swollen.

Dr. Aikins—I practice in Toronto. (Counsel stated the nature of Dr. Hill's testimony to witness.) No well-informed surgeon would like to place himself in the position of saying whether on the evidence the operation ought to have been above or below the elbow joint. If the muscle is torn away from its origin, it would implicate a number of muscles, and some veins and nerves. It is impossible to say what ought to have been done without seeing the case. (Witness here gave cases in point, showing that double amputation had been necessary in more than one instance, in consequence of the injuries extending further than at first supposed.) Any one who looks at the bones will see at a glance that the finger and thumb could not have been saved. (Explained this by reference to skeleton of a hand.) Had they been left, on the lowest possibility a second amputation would be necessary above the wrist, owing to inflammation. No good surgeon would have attempted to save these members. The surgeon would try by the forceps whether the tendons were loose or not, and he alone could be the judge. As to the manner of the sawing of the bone, it is a matter of no consequence whatever.

Cross-examined—Had a mass of skin been taken off the forearm without fracture, I would have endeavoured to save the limb. I never saw a case where some fingers were dragged out by traction, and the remaining fingers saved. Inflammation would be almost certain to occur. (Mr. M. C. Cameron here quoted a case from the *Lancet*.) It might be an accident to cut the bone crooked. It is a thing which happens to any surgeon. No medical man would take that bone up, and infer it was amputated by an unskillful hand. If a tendon simply five inches long were pulled out, I would not infer from that that it was necessary to amputate above the elbow. I know of one or two lives having been lost by waiting till gangrene set in before determining the necessity of amputating. I think any surgeon who risks the life of a patient by waiting till gangrene sets in before amputating ought to be prosecuted. I could not possibly say there was malpractice on the part of Dr. Hyde in this case.

Dr. Wright—I practice in Toronto. Having heard all the testimony I cannot say there was any malpractice in amputating in this case above the elbow. The injuries were extensive, and likely to be much more extensive than any one would suppose from the external appearances. He gave an instance where a second amputation was required in a case in which previously they had cut too low, not being able to see from the external appearance the nature of the internal injuries which afterwards presented themselves. The surgeon alone could judge in this case of the necessity of amputating above the elbow.

Cross-examined—The surgeon himself being the best judge, there never ought to be a case of malpractice brought against the profession. (Laughter.)

Dr. Winstanley—From the evidence to-day, I should say decidedly not—there was no malpractice in this case. I had a case where the patient died from the amputation being made too low, although at the time there was no external appearance of the muscles being injured higher up.

Dr. George Smith, of Stratford—I have been house surgeon to the Hospital of the London University. From the evidence I have heard, I do not think Dr. Hyde was guilty of malpractice under the circumstances. In my judgment, the injuries justified the course taken.

Cross-examined—The injuries I refer to are such as the crushing of bones and the lacerating of the muscles. In all these cases there is danger of sloughing and gangrene. It is a rule to save as much of the limb as possible. Surgeons differ on the point as to whether you may wait till you see if there is danger of gangrene before so amputating as to prevent the risk of gangrene.

Dr. Richardson—This is one of those cases in which two men of eminence might entertain very different opinions. If called in a case of this kind, and the surgeon told me he thought it necessary to go above the elbow joint, I could not pronounce that he had done wrong. The doctor here gave a case of his own where the patient appeared to be in peril from his endeavouring to save too much. I think in general conservative surgery is carried too far. Attempts have been made to save the limb, to the danger of the life. I think in this case the injuries must have been very severe indeed. Owing to the fact, as stated by Dr. Hill, that the end of the ulna was exposed, it is clear to my mind that the ulna artery, nerve and veins must have been torn away, and I should judge also from *that* fact there was serious danger to the limb from the low vitality of the parts thereby produced.

Cross-examined—The rule is to try to save as much of the limb as possible. The tearing out of the muscle at its origin, as stated by Dr. Hill, would be one ground to justify amputation above the elbow. It would have been unsafe to wait to see if there was danger of gangrene before amputating. I would not attach much importance to the opinion of Dr. Hill, after his statement that he thought the finger and thumb ought to have been saved.

Dr. Bovell—I practice in Toronto. I have heard the evidence, and consider Dr. Hyde not guilty of malpractice. I cannot believe any capable man would have operated above the elbow, unless he saw there was a cause for it.

Mr. Harrison—I suppose many limbs have been cut off which might have been saved.

Witness—Very likely. It is an Irish question and an Irish answer. (Laughter.) I rest my opinion that amputation above the elbow was necessary on account of the tearing out of the muscles and the injury to the fleshy parts. You cannot conceive of any case of a tendon being pulled away from its origin, wherein it is safe to do anything but amputate above.

Dr. Philbrick called. (Witness is very deaf.)

Mr. J. H. Cameron—Have you been in Court during the trial?

Witness—I have, but I can't hear anything. (Laughter.)

Mr. Cameron explained the nature of the evidence given.

Witness (in a loud voice.)—Had I received the injury described, I would have insisted on having my arm cut off above the elbow joint. (Loud laughter.)

Mr. J. H. Cameron—Pretty conclusive evidence. I will not ask you another question after that. This is the case for the defendant, my Lord.

Mr. Cameron then addressed the jury for the defendant. The defendant, he said, was sued on what was technically called an action for negligence, and the only ground on which the plaintiff could succeed was that the professional treatment of the defendant had been unskilful, and therefore, so negligent in that sense of the term that had it not been for such unskillfulness the plaintiff would not have sustained injuries which she was alleged to have sustained through want of skill. No professional man could ensure success, be he an attorney or a doctor. All that could reasonably be asked of a medical man was that he should exercise his knowledge and skill to the best of his ability, and that there should be a reasonable degree of knowledge and skill. There was an old adage that doctors differ; but in this case all the differences were between the doctors called for the plaintiff, while the distinguished doctors called for the defendant all agreed. As to the question of the want of skill, he contended that the treatment was proper, not only on the judgment of the defendant, but on that of some of the most eminent practitioners in the country, who had been called for the defendant. Why was it that the action had not been brought until nearly six years after the accident? Probably it was thought the circumstances would have been forgotten; and that the plaintiff might thereby have a chance of success. But fortunately the facts were remembered with great distinctness, and the nature of the injuries had been so well described as to show the necessity of the operation which had taken place. Supposing that amputation had not been performed, and the girl had lost her life instead of her arm, then the responsibility resting on Dr. Hyde would have indeed been such as to entitle her to damages. Dr. Hyde had practiced in the section of the country in which he resided for a number of years, and he had there a great name and reputation. There was no one there who supposed that he was unable to discharge his duty properly and skillfully, and that he had done so in this case was proved by the host of eminent surgeons who had been examined in court to-day. In no case had he ever seen so large an array of practitioners coming so readily forward to declare that the operation had been properly performed, and that the plaintiff was not only not entitled to damages, but that there was not a single stain of a want of skill resting on the reputation of Dr. Hyde.

Mr. M. C. Cameron said that, knowing doctors had arduous duties sometimes to discharge, he trusted nothing he might say would bear with undue weight against the defendant. He quite agreed with his learned friend, that if a surgeon with a fair amount of skill exercised his judgment fairly and honestly he ought not to be visited with consequences. The time elapsing between the period of the accident and the



present had arisen in consequence of Mr. Norris Black advising that the girl should attain her growth before he saw whether it was possible to make her an artificial arm. He contended from the evidence that an attempt ought to have been made to save the finger and thumb, or at all events the forearm, and argued from the amputation taking place above the elbow, that due forethought and skill had not been exercised. He submitted that there should be less hesitation now than formerly to perform a second amputation, if there was a reasonable chance of making the limb serviceable by first cutting low down, owing to chloroform saving the shock to the system and removing altogether the sense of pain and suffering. He believed that the amputation had been made above the elbow because it was an easier operation than to operate below, where there were two bones instead of one, as above.

The learned Judge, in summing up, said all that could be required of a professional man was a fair and reasonable amount of skill. Owing to the lapse of time, there was some difficulty, and even Dr. Hill could not give a full account of the transactions, for that reason. All the medical men concluded that amputation was necessary, and the only question was whether it was wrong to cut so high up. The jury had to say whether they were satisfied the treatment in cutting above the elbow joint was of such character as to be unskillful, and on this point they must consider that no evidence was brought forward to show the defendant was unskillful, except it might be so inferred from this case, and many of the most eminent medical men in the Province gave it as their opinion that he had acted skillfully, and that any other course might have endangered life. If they found for the plaintiff, they had to say what the amount of damages should be—determining the extent of the injury she had sustained by the cutting being above instead of below.

Mr. J. H. Cameron desired the learned Judge to note he objected that his Lordship should have told the Jury there was no evidence of negligence, and if they had any doubt as to the alleged want of skill, they should give the defendant the benefit of it.

The jury then retired, and shortly after returned a verdict for plaintiff and \$250 damages.—*Stratford Paper.*