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THE MANITOBA AND WEST CANADA

LANCET

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ORIGINAL ARTICLES.

CYSTIC DEGENERATION OF THE CHORION VILLI WITH SPECIMENS.

(Known under various names as hydatiform, mole, vesicular mole, or dropsy of the chorion.)

Synopsis: This disease is characterized by the hypertrophy of the Chorion Villi, by their conversion into cysts of various sizes, up to a hen's egg, connected with one another or with the base of the chorion by pedicles. It is further distinguished by rapid growth of the ovum; by the early escape of blood from the uterus, and premature expulsion of the ovum, which is covered over a greater or less part of its surface with numbers of small transparent cyts. Various explanations have been advanced to account for its occurrence, but Valpeau was the first to indicate that the cyts were nothing but distended chorion villi. According to Virchow this cystic degeneration of the villi is due to degeneration of the mucous substance within the villi, continuous with the substance of the cord. This change consists in the over-production of true mucous tissue within the villi. This process usually begins before the third month. The implication of the whole chorion is the rule, but exceptionally it is the placenta only that is affected.

The liquid contents of the cysts is usually clear and translucent and gives evidence on chemical examination of the presence of mucin and albumen in considerable qualities.

As to diagnosis there are three prominent symptoms:

1. Rapid increase in size of the uterus.
2. Discharge of blood or bloody serum from the uterus.
3. The escape of vesicles.

These symptoms do not always manifest themselves so that it does not always permit of a definite diagnosis.

Vesicular mole is most apt to occur in women who have already borne children or who have reached middle age, and is necessarily a result of impregnation. The degenerated chorion usually determines the expulsion of the ovum at some period between the third and sixth month of gestation. If, however, the degeneration be confined to a comparatively limited area the pregnancy will usually go on to term. On the other hand the embryo may be absorbed and the chorion become adherent to the uterine wall and be retained for twelve or more months. This retention is frequently due to the perforation of the uterine wall by the chorion villi, and as a result there may be fatal hemorrhage when the wax is expelled, or the villi may grow to such a length as to pierce the peritoneum which may be torn and fatal hemorrhage ensue into the peritoneal cavity.

AS TO THE ETIOLOGY—It cannot be attributed to any single cause. The conditions responsible for its production are numerous and may reside in either the mother or child.

VIRCHOW—Connects the condition with a diseased endometrium.

SCHROEDER connects it with a diseased condition of the uterine wall as fibroids.

Neither of these explanations will suffice for the occurrence of the disease in the chorion of one faetus while that of its twin remains healthy. In this case the disease is of *faetus* origin, perhaps the result of the death of the faetus.

AS TO TREATMENT—It will be mainly directed toward the symptoms. If excessive hemorrhage tampoon the vagina until the is sufficiently dilated to permit the expulsion of the cystic mass. If the diagnosis be made during the pregnancy and if careful examination give no signs of the presence of the faetus, the immediate induction of abortion would be advisable, in order that the chorion may not grow to an inordinate size and push its way into the uterine wall. If after the expulsion there should be symptoms of retention and decomposition of fragments the rational treatment would be to remove the offending substance.

SELECTED.

FIRST COMPLETE EXCISION OF THE STOMACH IN A HUMAN BEING.

History of the case, by Carl Schlatter, M. D., the Operator—The personal observation forming the subject of this paper, relates to a woman, 56 years old. In her case I completely excised the stomach, even beyond its cardiac extremity, and then restored the continuity of the alimentary canal by stitching a loop of small intestine into the lower end of the esophagus, i. e., esophageal-enterostomy.

History of the Present Case.—Anna Landis, aged 56 years, silk weaver by occupation, claims that cancer is hereditary in her family. As a child she recalls having had frequent attacks of abdominal pain. According to her own notion these attacks were due to the poor quality of the food at the orphan asylum where she was brought up. Later on she often complained of severe pains in the stomach, accompanied or followed by vomiting. She never saw bloody admixtures in the ejected matter, but large quantities of bile often came up. Medical treatment had never afforded her any relief. Ever since the spring of 1897 the attacks of vomiting were of daily occurrence. Progressive emaciation also ensued. Several weeks before her admission to the hospital, physicians told her that she had a tumor of the stomach.

I first saw the patient at the surgical polyclinic on August 26, 1897. An inspection of the abdomen revealed a marked bulging between the left hypochondriac region and the umbilicus. The abdominal parietes were flabby and palpitation easily revealed an oval mass of hard consistency in the region of the stomach. The tumor was freely movable. Its size was about that of two fists. Very marked emaciation was found. The patient was unable to retain any kind of nourishment. She clamored for relief by surgical interference.

She was admitted to my wards for further careful observation. I did not feel confident that gastrectomy, or even gastro-enterostomy, could be successfully performed, on account of the large size of the tumor.

The patient continued to reject almost everything, including fluids. The iodide reaction of her saliva (after exhibition of iodide of potassium) required forty-seven minutes for its first appearance. The chemical examination of her gastric secretion showed no trace of free hydrochloric acid. An operation was, therefore, no longer delayed.

Description of the Operation.—On September 6, 1897, acting for Professor Kronlein, I performed laparotomy under morphine-ether anesthesia and with strict antisepsis—incision in the median line, extending from the ensiform process to the umbilicus. As I had anticipated, the entire stomach presented itself in the shape of a hard mass extending from the cardiac to the pyloric extremity. Strangely enough the tumor was freely movable. It was readily lifted out of the peritoneal cavity. Three rather soft lymph nodes were found at the greater curvature near the pylorus. The stomach being diseased in toto, a gastro-

enterostomy was impossible. I at once decided to attempt to excise the entire organ, or take recourse in a jejunostomy. I first freed the stomach from all of its attachments at the greater and lesser curvature, having previously shut off the general cavity of the peritoneum by sterilized compresses. The omentum was incised between Pean's forceps. Silk sutures were used. The stomach was then forcibly dragged downward so as to enable me to reach the esophagus. The left lobe of the liver had to be constantly held upward by an assistant, in order to permit me freely to manipulate within the field of operation. In this way I finally succeeded in securing the esophagus rather high up by means of a Wolfler clamp. A Stille forceps was next fastened closely to the cardiac end of the tumor. Then the stomach was severed directly beneath the esophageal extremity. As the esophageal incision appeared somewhat oblique, I proceeded to place a small occluding suture at the gastric wound. The same steps were now repeated at the pyloric end of the stomach.

I next mobilized the duodenum as far as possible toward the head of the pancreas. Then, having applied a duodenal compressor, and likewise a tumor clamp, I removed the entire stomach between the two points of compression. I also dissected out the lymphatic nodes above mentioned. The patent lumen of the duodenum was treated like the esophageal opening with iodoform gauze. The broad bridge joining together different divisions of the alimentary canal had now been entirely removed.

I next tried to pull the duodenal opening towards the esophageal cleft. It was only with considerable difficulty that the two could be made to touch. It was manifestly impossible to join them by direct suture. I, therefore, invaginated the duodenal rim, and closed the opening by a double suture. I then searched for a suitable coil of small intestine. Beginning at the duodenal-jejunal fold, I followed down the intestine for about fifteen inches. The presenting knuckle of intestine I grasped, and, pulling it over the transverse colon, I placed it against the esophageal slit.

A piece of this intestine, about five inches in length, was secured between two Wolfler clamps. By means of sutures not going deeper than the serous coat, the intestine was then attached to the esophageal stump. A longitudinal slit about one inch in length was then made into the bowel. Then the mucous membrane of the esophageal end was firmly united with the intestinal mucous membrane, by a continuous circular suture. The material employed was silk. Above this, a second suture, extending through the muscular and serous coats, was introduced. A Lembert suture finally completed the stitching, which now seemed to hold.

The esophageal and duodenal clamps were then removed, the former having remained in position for over two hours. On dropping back the organs into the abdominal cavity, the sutured portions showed marked retraction upward, toward the esophageal part of the diaphragm. The abdominal wound was closed in the ordinary way by silk ligatures. Less than eight ounces of ether had been employed during the narcosis, which had fortunately been a very quiet one.

Pulse after the operation; 96 a minute, steady, and of fair volume.

There had been only a very slight loss of blood during the course of the operation, which, however, had lasted nearly two hours and a half.

Clinical Observations Following Removal of the Stomach—Shortly after the operation the patient received an enema containing brandy and two eggs. Temperature in the evening, 36.4 degrees C.

September 7th.—Two nutrient enemas containing milk, eggs, and brandy. Pulse rate has risen to 142, but in volume remains moderately good. Patient has taken per os, in the course of the afternoon a small quantity of tea and milk, which is apparently well borne. No signs of peritonitis. Evening temperature, 37.3 degrees C.

September 8th.—Nutrient enemas no longer retained. Claret wine in teaspoonful doses given, until half a glass has been taken. Patient complains of sudden abdominal pains, which, however, quickly subside. Evening temperature, 38.1 degrees C.; pulse, 160, but of moderately good volume.

September 9th—Subjective symptoms considerably improved. At intervals of two hours, very small quantities of milk, eggs, bouillon and wine are given.

Small quantities of pepsin and muriatic acid have been tentatively added to the food. Pulse better, 146 per minute. Highest temperature, 38.1 degrees C.

September 13th.—Dressing removed. The abdominal wound found united by primary intention without a trace of local reaction. Stitches removed. Patient allowed a little scraped meat for the first time. The first movement of the bowels since the operation took place September 10th. Since then the patient has had from two to three fluid stools daily.

Occasionally there is some regurgitation of ingested milk, but actual vomiting has not occurred.

September 16th—Patient feeling remarkably well; temperature normal; pulse, 100; slight diarrhea.

From now on the patient was able to take fairly large quantities of food. Mornings at 7, a cup of milk with one egg; 9:30, cup of milk with one egg; Dinner, very soft scraped meat, or a cup of thin gruel with an egg; 4 p. m., cup of milk with one egg; 7:30 p. m., a cup of milk or gruel. In addition to these regular feedings she also takes tea and Malaga wine, amounting in the course of the day from five to seven ounces.

On September 16th, for the first time since the operation, vomiting occurred. It was preceded by nausea, apparently superinduced by the patient having witnessed a change of dressing in a neighboring surgical case. There was a good deal of retching, and about seven ounces of bilious and slightly acrid fluid were ejected.

September 26th.—Patient is allowed to have half a chicken, the last remnants of which she swallowed at 4:30. At 6:30, customary milk and egg. At 7:30 attack of vomiting, with considerable retching and marked contractions of the abdominal muscles. The ejected matter amounted to about ten ounces, and consisted largely of milk and meat fibres. For some time before this attack patient had complained of a decidedly bitter taste in her mouth.

October 2d.—Another attack of vomiting. The ejected fluid measured over six ounces. It was yellowish in color and not offensive. This attack came on one hour after eating. Examination showed that undigested egg and milk had been thrown up.

October 4th.—An attack similar to the one just noted was observed.

October 8th.—Another attack of vomiting. The slimy fluid was sent to the laboratory for chemical examination. The report received stated that the reaction of the fluid was distinctly acid. This was owing to the presence of lactic acid, as no free hydrochloric acid was found. Trypsin reaction was also discovered. Bile acids and bile pigment were likewise present in appreciable quantities. It should be mentioned, in this connection, that the patient was no longer taking pepsin and muriatic acid.

October 11th.—Patient left her bed for the first time since the day of the operation, i.e., September 6th.

November 2th.—Patient feeling quite well and able to walk about comfortably.

There was a considerable progressive increase in the weight of the patient after removal of the cancerous stomach.

Pathological Report on the Excised Stomach.—The specimen consists of a human stomach measuring twenty-eight centimetres (eleven inches) along the great curvature, and twenty centimetres (eight inches) along the lesser. The greatest width between the curvatures amounts to ten centimetres (four inches) (see Fig. 3). The gastric cavity is so completely occupied by a neoplasm that it is difficult to force a finger in at either extremity.

From both the cardiac and pyloric ends, small portions were cut off and sent to the pathological institute of the university (see Fig. 4). Professor Ribbert made the following report on these specimens; one piece is unmistakably duodenal. Microscopical examination showed the neoplasm to consist of a small-celled alveolar glandular carcinoma. According to the microscopical report of Professor Ribbert, already alluded to, there can thus be no question that in my case the gastric excision extended into the territory of the esophagus. Nevertheless

less, anatomical considerations did not make it clear to me why, during the course of the operation, it had seemd so easy, comparatively speaking ,to gain access to the esophagus. Of course it must be remembered that I made use of considerable traction downward by pulling on the stomach itself, and it was in this way that the subd aphragmatic portion of the esophagus became markedly elongated.

This practical demonstration in the living subject received anatomical corroboration from the prosector at the anatomical institute of the university. I was informed that it was always possible under normal conditions to elongate by traction the lower subdiaphragmatic portion of the esophagus.

The accompanying lymph nodes were found to be non-cancerous.

Practical Anatomical Observations.—I would like in the first place to say a few words in regard to the technique of the foregoing operation. Langenbuck,* in conection with his recorded gastrectomies, has published the following statements: "Of course, my gastrectomies did not amount to total extirpation of the stomach. And, indeed, total ablation appears to be practically impossible toward the cardiac extremity of the stomach. For the cardiac portion has, like the head of the humerus, an anatomical as well as a surgical neck. Bearing in mind this anatomical peculiarity, it seems admissible to regard my operation as instances of total exsections of the stomach. For in both cases I removed as much of the organ as was technically possible."

Now, the boundary line between the esophagus and cardiac extremity of the stomach is clearly defined. The former is supplied with pavement epithelium; the latter shows the cylindrical variety. Personal observation and experiments on the cadaver fully confirmed this observation.

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*Deutsche medicinische Wochenschrift, p. 969, 1894

In the case of my patient it should also be borne in mind that as soon as the Wolfler clamp was removed, marked upward traction of the esophageal stump was witnessed. Possibly the weight of the neoplasm had previously contributed its share toward dragging down the esophagus. I cannot, therefore, accept the quoted statements of Lagenbach.

Dietary Considerations Following Removal of the Stomach.—In attempting suitably to regulate the nutrition of my patient after the operation, it became first of all necessary to bear in mind what functions had been done away with by complete ablation of the stomach. It seemed to me a priori possible that the patient should survive, on account of the previous practical elimination of all gastric functions, owing to the large size of the tumor. Nevertheless, it became an object of my solicitude to discover means for the compensatory substitution of something new in place of the loss of the old. It is true, modern physiological research no longer vouchsafes to the stomach its role as chief organ of the digestive apparatus. Nevertheless ,its importance in chemical as well as in physical respects should not be underestimated. It is still a question whether the human organism can long survive the total elimination of all gastric activity.

Physiological Observations.—It is well known that considered merely as food reservoir, the stomach exercises a highly beneficial influence over all ingesta. Food is retained for a shorter or longer period in the stomach, according to differences in its nature. To the bowel there is thus assured a measurable degree of safety from overloading. As a corrector of widely different degrees of temperature of various kinds of foods, the stomach certainly fulfills an important office. The well known chemical and mechanical activities of the stomach, as also the disinfecting potency of its secretions, need not be specifically dwelt upon to establish the manifold importance of this organ. The bactericide action of gastric juice in cholera and other diseases need only be mentioned in passing. The capacity for absorbing certain liquids while not so important as was formerly believed, should nevertheless also be borne in mind.*

Clinical Observations in Connection with the Obliteration of all Gastric functions after the Operation.—There being no food receptacle after ablation of the stomach, it becam-

obligatory to feed my patint at first with minute quantities of food, given at short intervals. The results of this method of procedure were in all respects happy ones. Quantities of food approaching ten ounces seemed to excite vomiting. So, too, cold fluids resulted in diarrheal discharges and may have been partly responsible for the rise of temperature.

Keeping in mind the absence of mechanical function, the patient's dietary was at first a strictly fluid one. But as early as the second week after removal of the stomach, semi-solid and even solid food was allowed. It was retained and digested without discomfort. The patient having only a single tooth, mastication was of course quite imperfect, otherwise it seems to me possible that an ordinary mixed diet might have succeeded at a still earlier date.

Some weeks after the operation the patient's ordinary daily diet was as follows: At regular intervals of from two to three hours she took milk, eggs, thin gruel or pap, tea, meat, rolls, butter and Malaga wine. The daily quantity amounted to one quart of milk, two eggs, two to three ounces of pap or gruel, seven ounces of meat, seven ounces of oatmeal or barley water (as thick almost as gruel), one cup of tea, two rolls and half an ounce of butter.

Personally, I felt most concerned about the obliteration of all chemical activity on the part of the absent stomach. I soon perceived that adding pepsin and hydrochloric to the food was theoretically as inadmissible as it had been found practically valueless. The alkaline fluids of the intestine at once neutralized the acid and rendered the pepsin inert.

Fortunately, it soon became apparent that despite the absence of acid pepsin proteids were readily assimilated in the intestinal tract.

Does Gastric Acidity Influence the Decomposition of Intestinal Contents?—This moot question received contributory elucidation by the careful study of the patient's discharges after the operation. The urine and feces were examined every day at the chemical laboratory of the university. Products of abnormal intestinal fermentation or decomposition (skatoxyl and indoxyl) were either not at all found, or else discovered only in traces.

These obsrvations tend to corroborate the views of v. Noorden,* while it negatives the opinion held by Kast and Wasbutski. The most recent results of laboratory experiments announced from Professor Baumann's institute, viz., that hydrochloric acid inhibits intestinal decomposition, thus received no support from actual observations in the living human subject.

Does Removal of the Stomach Affect the Rapidity of Intestinal Propulsion?—Observations on this point are still being made, and at the present time I am unable to present any very definite conclusions. The patient objected to swallowing charcoal. Huckleberries were at three different times found in the passages, twenty-four hours after having been swallowed.

The Urine After the Operation.—Apart from a daily recurring diminution in the quantity of excreted chlorides, the urine of this woman has remained normal since ablation of her stomach. The daily excretion of chloride of sodium has been found to vary between the limits of 0.6 per cent and 0.95 per cent. It should be stated in this connection, however, that, complying with the wish of the patient, her food is prepared with less salt than that of the other ward patients.

Microscopical Examination of the Feces.—The stools were well formed, of normal consistency, and light yellow in color. The microscope showed large numbers of fat globules and fatty crystals, some undigested vegetable fibres, but no undigested vegetable fibres or connective tissue. Large quantities of triple phosphates were observed. The number of micro-organisms was normal. Altogether repeated examinations revealed no noteworthy departure from a condition of perfect health.

Vomiting Without a Stomach.—How can a person vomit without a stomach? No matter what theoretical physiological notions we may have imbibed from lectures and text-books, the woman under observation had repeated attacks of ordinary nausea, retching and vomiting. We must needs conclude, therefore, that the role of the stomach (i. e., its antiperistaltic efficacy) in this direction has

been very much overrated. While the vomited substances showed an acid reaction, this was not due to the presence of free hydrochloric acid.

In view of the fact that the patient ejected as much as thirty ounces at one time, it seems reasonable to suppose that the remaining portion of the duodenum may have already begun to show distension sufficient to produce a sort of compensatory receptacle for food—perhaps nature's attempt in the direction of the new formation of a stomach.

In endeavoring to explain vomiting without a stomach, we should remember that the act itself is far from a simple process. It is due to nervous action on a complex motor apparatus, consisting of pharynx, œsophagus, stomach, diaphragm and abdominal muscles.

It is not surprising, therefore, to have witnessed in this woman an ordinary attack of bilious vomiting superinduced by a mere psychical disturbance.

—From "N. Y. Medical Record."

EXSTROPHY OF THE BLADDER: SUCCESSFUL IMPLANTATION OF THE URETERS INTO THE RECTUM.

Dr. G. R. Fowler presented a case of exstrophy of the bladder, in which implantation of the ureters into the rectum, by a new and original method, had been performed. The history of the case is as follows:

E. W., aged six, referred by Dr. McCleary, was admitted to the Brooklyn Hospital, with exstrophy of the bladder and epispadias. In view of the unsatisfactory results following the plastic procedures designed to restore the defect in the anterior abdominal and bladder walls in this class of cases heretofore in use, it was decided to utilize the rectum, as a receptacle for the urine, which according to O'Bierne, is practically empty during the intervals of defecation, the feces being stored at the sigmoid flexure.

The abdomen was opened in the median line, with the patient in the Trendelenburg position, the rectum being thoroughly cleansed primarily. The ureters were identified in their relation to the vessels, the posterior layer of the peritoneum incised for a sufficient extent to expose them freely, and ureters traced to their termination upon the bladder wall, from which they were detached. The ends of the ureters were cut off obliquely.

A longitudinal incision seven centimeters long was made in the anterior wall of the rectum, only the serous and muscular coats being included in the incision. The edges of this incision were retracted, a diamond-shaped space in the submucous space being thus exposed. A tongue-shaped flap of mucous membrane, with its base directed upward, was cut from the mucous membrane of the bowel in the lower half of the diamond. This tongue-shaped flap was doubled upon itself in an upward direction in such a manner that one-half of its mucous surface presented anteriorly, where it was secured by one or two catgut sutures. A flap was thus secured, both sides of which were covered with mucous membrane.

The ureters were now placed in the incision with their obliquely cut ends lying upon the presenting mucous-membrane surface of the flap. Two catgut sutures served to secure the ureters in position at this point, and two more were placed in the space represented in the upper half of the diamond, care being taken that these sutures did not invade the lumen of the ureters. The flap-valve and attached ends of the ureters were then pushed into the cavity of the rectum, and the rectal wound closed as follows: The gap in the mucous membrane left by the reflected half of the tongue-shaped flap was first satured by a running catgut suture. The original wound in the rectal wall was then closed by fine silk sutures, the upper two or three of these being likewise utilized for still further securing the ureters where they passed in the submucous space in the upper half of the diamond. The abdominal wound was then closed.

Prompt recovery followed the operation. The rectum became remarkably tolerant of the presence of urine from the first day following the operation, urination occurring per rectum on an average of every three hours. As time passed this toleration became more pronounced, until at the pres-

ent time the intervals do not exceed the normal.

The bowel performs without apparent difficulty the double function of a receptacle for both feces and urine. While urination takes place at normal intervals, defecation likewise takes place at normal intervals. The former occurs about once in six hours; the latter takes place but once daily. The movement is generally formed and is not mixed with or accompanied by urine, as far as gross appearances can determine.

Ordinary cleansing after each act of urination suffices to prevent excoriations and eczematous conditions in the anal region, no trace of which is present. The child up to this time, fourteen months after the operation, has shown no evidence of renal disturbance. He attends the public school, and suffers not the slightest inconvenience from the presence of the urine in the rectum.

The following objects are claimed to be obtained by this method of operating:

1. Regurgitation of urine, or passage of feces into the ureters, is prevented by an efficient and permanent valve with a mucous surface applied to the open mouths of the ureters.

2. The circular muscular fibers of the bowel-wall make compression upon the ureters as they lie in the space beneath the muscular coat of the rectum, thus securing occlusion, and affording an ultimate security against regurgitation during the act of defecation.—Brooklyn Medical Journal.

A meeting of the Council of the College of Physicians and Surgeons of Manitoba was held on the 8th of February in the City Hall, Winnipeg.

Members present:

Dr. Thornton, of Deloraine, President, in the chair.

Dr. McConnell, of Morden; Dr. Husham, of Wawanesa; Dr. Lundy, of Portage la Prairie; Drs. Cleark, Jones, Smith, Inglis, Patterson and Gray, of Winnipeg.

After the reading of the minutes of the previous meetings the Council proceeded to the election of officers for the current year, which resulted as follows:

President—Dr. Clark.

Vice President—Dr. McConnell.

Registrar—Dr. Gray.

Treasurer—Dr. Patterson.

Representatives to University—Drs. Jones, Smith, Inglis and Gray.

To Board of Studies—Dr. Jones.

COMMITTEES.

With some minor changes made necessary by the election of officers the committees of last year were re-appointed.

The question of establishing a Medical Library, which was discussed over a year ago, was again taken up.

The Registrar read a communication from the Secretary of the Winnipeg Medical Association containing sugestions from the latter on the question, with a view at the same time of providing rooms which could be used for the various meetings throughout the year, both of the Council and the Association.

After considerable discussion on the different phases of the question, a motion was passed expressing the willingness of the Council to vote $500 toward the first costs for books, etc., and $250 per annum for maintenance; also instructing the Legislative commitee to take measures to secure whatever amendments to the Medical Act might be found necessary to enable the Council to make such appropriation.

The committee were also directed to confer with the Winnipeg Medical Association with a view to ascertaining the probable cost of maintenance and the proportion of the same the Association would guarantee.

The question of reducing the annual fee to one dollar was introduced, but no action was taken, it being agreed to defer it until the Library question was settled.

INTER-PROVINCIAL LEGISLATION.

Dr. Thornton presented his report as delegate from this Council to the Committee of the Canada Medical Asscciation having charge of this matter.

The report shows: I. that the Councils of the Maritime Provinces, Quebec, Ontario and Manitoba had been represented in that committee in 1896, and that a scheme was proposed in that year and the various

councils asked through their respective delegates to deal with that proposition at their meetings during the year and report back to the committee in 1897; II., that in 1897 when the committee met, all the Councils above mentioned, except one, reported that the findings of the committee had been received and in general terms accepted as a basis of agreement for inter-provincial registrating. The one exception was the Ontario Council, which reported through its Registrar, Dr. Pyne, that it had made no resolution on the question, and had appointed no delegate to act in the matter on the committee of 1897. III., committee thereupon reported that the five Councils, P. E. I., N. S., N. B., Quebec and Manitoba had signified by resolution their acceptance of the scheme proposed in 1896 as a basis of agreement and recommended that the matter be referred to the Councils mentioned to formulate an agreement and carry it into effect. IV., this report was unanimously adopted by the Canadian Medical Association the following day, August 31, 1897.

It will, therefore, be seen that the Councils of British Columbia and the Northwest Territories made no response to the call of the Canada Medical Association committee in 1896, and that the Ontario Council, after taking a part in the initial proceedings of that year, deliberately dropped out, apparently deciding to have nothing more to do with it.

After further discussion of the subject a motion was passed requesting Dr. Thornton to correspond with the Councils of the N. W. T. and B. C.; also those of the Maritime Provinces and Quebec, with a view to establishing reciprocal registration among themselves.

Notice was given that at the meeting of the Council a motion would be introduced instructing the Councils representatives on the University to endeavor to have the regulations governing applicants from Ontario so changed that they would be subjected to the same examination as applicants for Ontario licenses are subject to.

There being no further business before the meeting, the Council adjourned.

The following is a summary of the financia lstatement for the last financial year of the College:

Of the balance on hand ($4,053.16), $1,500 is set apart in special account as a medical defence fund.

J. S. GRAY,
Registrar.

FINANCIAL STATEMENT.

August 25th, 1897:

Receipts—		
Cash on hand, Aug. 25, 1896	$3,372.86	
Registration fees	1,050.00	
Annual fees	26.00	
Fines	25.00	
Dividend from Commercial bank	281.60	
Interest	24.44	
		$4,479.90
Expenditure—		
Salaries and expenses of members	$460.30	
Prosecutions	92.40	
Printing and postage	24.04	
Expenses, delegate to Montreal	150.00	
		$726.74
Cash on hand, Aug. 25, 1897		$4,053.16

On Friday, February the 18th, one of the most enjoyable events of our college year took place. On that evening Dr. Chown, Honorary President of the Medical College Football Club, entertained at the Manitoba Hotel, the Victorious Eleven (who this year succeeded in bringing to the College the "Chown Cup," the emblem of superiority in the Intercollegiate football arena), together with the profession and the whole body of medical and pharmaceutical students.

How different is the medical student's life of to-day to what it was forty years ago. At that time the student was associated with one member of the profession, and to whom he looked for all the practical pointers which were to aid him in his life calling; at the present day, with the increase in the number of students seek-

ing to qualify thmselvess, the old plan has become an impossibility, and instead of a father handing down to a son a few of the maxims which form the foundation principles of our profession, we now, even in this young Province, have a body of men, who, without remuneration, unselfishly devote their time and talents to the education of a body of students who in a few years must share with their teachers the duties of their noble calling. But this is only true to the inherent qualities of these men who delight in expending their energies for the physical welfare of their fellow beings. As our worthy Dean has very truly said: "There is no other profession in which men voluntarily practice this suicidal custom, they not only do their utmost to cure people, whose illness is to them a means of livelihood, but they also feel chagrind when their patients are so unkind as to not recover quickly."

Although to an extent deprived of the closer relations previously existing between doctor and student we have what is, perhaps, far better, the privilege of visiting the wards of the hospitals with our professors of learning therein many of the more practical points which cannot be acquired from books or lectures; we are thus associated with a greater number of practitioners and thereby obtain a wider knowledge of the customs and practices of the sick room and we are enabled to study a greater number of cases and at the same time to avail ourselves of the opportunity of acquiring that very essential adjunct to ae knowledge of medicine namely a proper conception of the etiquette of the sick chamber.

Our College life is unique in many respects, but in none more than in the feeling of good fellowship which exists between the professor and students. Our professors show an interest in everything concerning the students life ;each branch commanding its share of the generous patronage of the faculty. Our interests are theirs, and we would be indeed ungrateful if we failed to recognize how much this happy condition of things has contributed to our present pleasant relations, and to the kindly recollections which we shall in the future carry with us into the stirring life.

Our football club enjoys its quota of the interest and support of our professors without which we should be unable to compete with our sister colleges with that measure of success which has attended our interests in the past. At every match we play, among the spectators may be seen a number of our professors watching the progress of the game as long as their pressing calls will permit—and every victory of more than usual importance is marked by a sumptuous spread, the outward evidence of that same spirit of generosity and interest which the faculty ever exhibit toward the students.

As to the ability of our faculty nothing more need be said than to point to some of our graduates of whom their Alma Mater is justly proud; seven members of the faculty are graduates of the College. Among them we find physicians and surgeons of unquestioned ability. Our graduates are to be found not only in our staff, but on looking over other announcements we see some of their names figuring among the professors and lecturers.

Of their success in competition with other Colleges we have but to look at the records of the examinations of the College of Physicians and Surgeons of British Columbia. In competition with representatives of Colleges from various parts of America and Great Britain we find three of our graduates occupying the leading places. This, I take it, is sufficient evidence of the ability of our faculty.

As to the kindness shown us by members of the faculty I can only say with Burns, "There are many things I wud like tae say, but a full hert mas few words."

C. T. SHARPE, B. A.

MISCELLANEOUS

OPERATION FOR THE PREVENTION OF CONCEPTION.

A woman who was still young had fallen into a state of grave anemia after seven successive confinements, and Dr. Kehrer, Professor of obstetrics and gynecology at Heidelberg, performed the following operation, according to "La Semaine Medicale," in order to

prevent further pregnancies: By a median vaginal incision he penetrated the peritoneal cavity; then drawing the tubes into view he placed around them two catgut ligatures. This done, he performed vavinal hysterrectomy immediately above the internal orifice of the uterus, introducing into the vesico-uterine cavity a strip of gauze and suturing the wound into the vagina, so as to leave a small opening for the passage of the drainage. Apart from a little fever and slight suprapubic pain there were no sequelae. This process of artificial sterilization possesses the advantages over castration of being a less serious operation, and of not bringing in its train the nervous troubles that double ovariotomy does. Dr. Kehrer thinks this could be done in certain grave affections (anemia, pulmonary and cardiac leisons) which renders pregnancy dangerous. He acknowledges that from a moral point of view the legitimacy of this operation could be questioned, and believes it ought not to be performed without the written consent of the parties concerned and a statement of the motives for such intervention.—"Med. Record."

A curious bar was set up to the collection of a physician's bill in a case reported by Dr. Gottheil, in the "New York Medical Journal." The defense was that the adult sister of the patient, who had called in the physician, lacked six months of being 21 years of age, and was therefore legally a minor. The parents of the patient resided in another State, and the case was thrown out.—"Gaillard's Med. Journal."

Amillet ("L'Obstetrique, July 15, 1897) insists that after grave hemorrhage in pregnancy or labor a saline intravenous injection is the best method for encountering acute anemia. A 1 per cent. solution of chloride of sodium is the only available mixture which has no evil influence on the corpuscles. At least 1,500 to 2,000 grammes must be injected. In less serious cases 200 grammes can be injected under the skin; more than one dose may be required. Amillet recommends an intravenous saline injection or a subcutaneous injection before any obstetrical operation is performed on a woman exhausted by loss of blood. When the patient has clearly been revived by these means she must, in any case, be closely watched, as some time the good effects do not last. The injections must be repeated, if necessary, till all danger has passed away.—"British Medical Journal."

NEURALGIA REMEDIES.

1. Menthol .....45 grs.
   Cocaine .....15 grs.
   Chloral hydrate .....10 grs.
   Petrolatum .....300 grs.
2. Tincture aconite .....5 parts
   Lard .....20 parts
3. Oil Peppermint .....8 parts
   Tincture aconite .....4 parts
   Chloroform .....2 parts
   Poison! Apply every half hour.
4. Camphor .....1 part
   Chloral hydrate .....1 part
   Chloroform.....4 parts
   Alcohol .....4 parts

CASCARA SAGRADA DEPRIVED OF ITS BITTERNESS.

The disagreeable bitterness of cascara sagrada can be effectually cloaked under the guise of the following mixture:

Cascara sagrada pulv.....11 ozs.
Liquorice .....3 ozs.
Cloves, pulv.. .....1 dr.
Magnesia calc .....2 drs.

A sufficient quantity of water is then added; it is then intimately mixed; it is then kept at a temperature of about 82 degrees for about forty-eight hours. After all the moisture has been driven off it is again pulverized, and then sifted; the product thus prepared has no bitter taste left, though it retains all its laxative properties.——"Repert de Pharm."

THE DANGERS IN COCA WINES.

Dr. Snow, of Bournemouth, in his Presidential address to the British Balneological Society, spoke of the increase of intemperance amongst invalids from the enormous consumption of coca wine. It is a subject to which we have frequently called attention. The evil, however, is by no means confined to invalids and convalescents, but pervades all classes of society, women and children being the chief

victims. The term coca wine has no definite meaning; that is to say, there is no official formula for its preparation. Some kinds are made from the coca leaves themselves, others from the liquid extract of coca of the British or United States Pharmacopeias, whilst another variety is not made from coca at all, but from hydrochlorate of cocaine. In every case, however, the basis is a strongly alcoholic wine. In one specimen the wine was evidently of Spanish origin; and of the quality usually sold retail in London at from 1s. to 1s 3d. a bottle. It probably contained from 18 to 20 per cent. of alcohol, and was clearly not of a character to be taken with impunity by, say, a girl at school at 11 o'clock in the morning. A chemist was recently summoned at the instance of the Inland Revenue authorities for selling coca wine without a license It was stated in evidence that on analysis the wine was found to contain 29.2 per cent. proof spirit. The magistrate pointed out that it was bought from chemists by women who had given way to drink, and that it was extensively used for that purpose. He imposed a fine of £5, with costs.—Monthly Retrospect.

THE PEST-STRATUM OF THE SITES OF CITIES.

Dr. Robert Barnes, who as long as 1855 was a health official for a part of London, in "Scalpel" treats of the dangerous properties of the superficial soil of cities, the careful future investigation of which will solve some of the mysteries of high civic mortalities. Dr. Barnes says:—"One of the most striking examples of the influence of soil, and soil governs water and air, is the generation of ague. Ague was at one time endemic in Shoreditch, but it has vanished. So we may reason that unhealthy sites made be made healthy by care; but it is not less true than sites, naturally the most salubrious, may by neglect become pestiferous and deadly. I showed that we were chiefly concerned with the soil to the depth of thirty feet. Proceeding from the surface th had a bed of variable thickness, commonly called "made earth." It is chiefly an artificial stratum. The proportions of "virgin soil" to that of common earth had been reduced to a very insignificant amount. The great bulk was made up of refuse of every kind.....

THIS UPPER STRATUM

so constituted had been further polluted, and its noxious qualities intensified, by innumerable perforations for cesspools, and constant saturation from defective sewers and drains, the poisonous emanations from gas-pipes, and every conceivable abomination resulting from the off-scourings of a on,populatinoehofw premis-popu.ation of 25,000. This layer of foul stuff, or pest tstratum, as it may appropriately be called, varied in thickness from one or two to sixteen feet or more. This description of the pest-stratum is a very important contribution to geology. This last stratum, the work of man, has to be cleared away. This done, geology reverts to its primeval natural purity. Another observation may be pardoned. If the pest-stratum, laden as it is with putrescent matter, could be kept dry, it would be comparatively harmless. Moisture is a necessary element for the evolution of its pestiferous properties. Hence good surface drainage is not less necessary than deep drainage. And we may see a happy illustration of this in the present condition of the city and the more perfect districts of London. The paving and other means for securing quick surface drainage not only lessen the emanation of foul air from the surface, and from the soil beneath, but they also promote the dryness of the air.

THE RELATIVE HUMIDITY

of the air in London is often less than in the country. This is especially marked at night. There is little or no dew. The dry surface gives off no moisture for precitation. And so we get in London the luxury of clear, dry, fresh air at night to a degree hardly known in many parts of the country. Doctors who have experience of night work have found this out. A practical lesson from this is: That windows may often be opened at night in London with benefit, when in the country, where grass is near, the practice is fraught with danger. I have had many proofs of this in country consultations. To secure this surface drainage and cleanliness to the greatest extent is essential that the material for pavements be solid

and impermeable to moisture.. Flagstones and asphalt fulfill these conditions. Wood pavement, pleasant as it is in some respects, does not. It absorbs damp filth and gives off foul air and ust. The population actually living on the banks of the Thames whose every breath is a distillation from its water, is not especially liable to fever; not so much so, indeed, as the population whose dwellings skirt the banks. And this littoral population, it must be borne in mind, is exposed not only to the maleria arising from the banks, but also to that same class of pernicious influences attached to bad sites and badly constructed houses, which are found alone sufficient to generate fever.

"MOST ERRONEOUS ASSUMPTIONS still continue to guide the exertions of those who are most earnest in favor of the present scheme of what is called the dis-pollution of the Thames. I had studied the Gulf Stream as it flows in a distinct current across the Atlantic; I had seen the Plata propellings its stream of fresh water unmingled many miles into the ocean; I had traced the confluence of the Rhine and the Main, whose streams are colored, one red, the other green, running on side by side, two rivers in one bed, and I concluded that the great sewage stream would hold its course, a concentration of pollution. Sir John Simon, in his admirable reports, expressed conclusions in harmony with the above.—Health.

A DIETIC EXPERIMENT.

The medical department of one of the infantry regiments of the Guards stationed in Berlin is engaged in carrying on gastronomic experiments, not on the usual patient laboratory animals, but on medical students (candidates for the army surgeon examination) who volunteer to serve as subjects of experiment. These young martyrs to science undertake to eat and drink nothing beyond the regimental rations during the period of observation, which lasts from a fortnight to four weeks. Daily they may be seen in full equipment marching out with the regiment, sharing its fatigues to the full. Immediately on their return to barracks every day they turn into the Charite Hospital, where their temperature is taken, pulse, body weight, amount of perspiration, &c., registered, and even the stomach-pump used on some of the most devoted. These experiments , which are carried out with true German thoroughness, are to furnish data for further improvement in the nutritive value of food supplied to soldiers on march.

PRESERVED EGGS.

In Germany systematic experiments have recently been made for the purpose of securing the most rational method of preserving eggs. Twenty methods were selected for these experiments. In the first days of July, 400 fresh eggs were prepared according to these methods (20 eggs for each method), to be opened for use at the end of the month of February. Of course, a most essential point of the success of preservation is that only really fresh eggs be employed. As the most infallible means of ascertaining the age of the eggs, the experimenter designated their specific weight. With fresh eggs it is from 1.0784 to 1.0942. If the eggs are put in a solution of 120 grammes (4.23 ounces) of common salt in 1 litre (1.0567 quarts) of water, the specific weight of which solution is 1.073, all the eggs that swim on this liquid weigh less, and consequently are not fresh. Only those eggs that sink are to be used for preservation. When, after eight months of preservation, the eggs were opened for use, the twenty different methods employed gave heterogenous results:-

(1) Eggs put for preservation in salt water were all bad (not rotten, but uneatable, the sa.. having penetrated into the eggs.)

(2) Egggs wrapped in paper, 80 per cent. bad.

(3) Eggs preserved in a solution of salicylic acid and glycerine, 80 per cent. bad.

(4) Eggs rubbed with salt, 70 per cent bad.

(5) Eggs preserved in bran, 70 per cent. bad.

(6) Eggs preserved with a cover of paraffin, 70 per cent. bad.

(7) Eggs varnished with a solution of glycerine and salicylic acid, 70 per cent. bad.

(8) Eggs put in boiling water to fifteen seconds, 50 per cent. bad.

(9) Eggs treated with a solution of alum 50 per cent. bad.

(10) Eggs put in a solution of salicylic acid, 50 per cent. bad.

(11) Eggs varnished with water-glass (wasser glass 40 per cent. bad.)

(12) Eggs varnished with collodion 40 per cent. bad.

(13) Eggs covered with lac, 40 per cent. bad.

(14) Eggs varnished with sward, 20 per cent. bad.

(15) Eggs preserved in ashes of wood, 20 per cent. bad.

(16) Eggs treated with boric acid and water-glass, 20 per cent. bad.

(17) Eggs treated with maganate of potassae, 20 per cent. bad.

(18) Eggs varnished with vaseline, all good.

(19) Eggs preserved in lime water, all good.

(20) Eggs preserved in a solution of water-glass, all good.

Thus it appears that the last three methods are to be considered the best, and especially the preservation in a solution of water-glass, as varnishing the eggs with vaseline takes too much time, and the treatment with lime water sometimes communicates to the egg a disagreeable odor and taste. The drawback with eggs preserved in a solution of water-glass is that the shell easily bursts in boiling water; but it is said that this may be avoided by cautiously piercing the shell with a strong needle.

PAY OF SURGEONS IN THE UNITED STATES ARMY.

To each rank is attached a fixed annual salary, which is received in monthly payments, and this is increased by ten per cent. for each period of five years' service until a maximum of forty per cent. is reached. An assistant surgeon with the rank of first lieutenant, mounted, receives $1.600 per annum, or $133.33 monthly. At the end of five years he is promoted to captain and receives $2,000 a year, which, with the increase of ten per cent. for five years' service, is $2,2000, or $183.33 a month. After ten years' service he receives $2,4000, after fifteen years $2,600, and if he remains a captain after twenty years, $2,800. The pay attached to the rank of major is $2,500 a year, which, with ten per cent. added for each five years' service, becomes $3,500 after fifteen years and $3,500 after twenty years. The monthly pay of lieut.-colonel, colonel, and brigadier-general is $333.33, $375, and $458.33 respectively. Officers, in addition to their pay proper, are furnished with a liberal allowance of quarters according to rank, either in kind or, where no suitable government uilding is available, by commutation. When travelling on duty an officer receives four cents a mile and reimbursement of money actually expended on railway or other fares. On change of station he is entitled to transportation for professional books and papers and a reasonable amount of baggage at government expense. Mounted officers, including all officers of the medical corps, are provided with forage, stabling, and transportation for horses owned and actually kept by them, not exceeding two for all ranks below a brigadier. Groceries and other articles may be purchased from the commistary and fuel from the quartermaster's department at about wholesale cost price. Books and instruments are suplied in abundance for the use of medical officers in the performance of their duties.

Compare this with Canadian pay.—Ed.

THERAPENTICAL NOTES.

An Injection for Gonorrhoae in Women.—Lutaud (cited in the Journal de Medecine de Paris for January, 2d) employs the following formula:

R Alum, Borax	each	450 grains
Quinine sulphate		15 grains
Carbolic acid, Essence of thyme	each	30 drops
Glycerine		3,000 grains

M. A tablespoonful, in a pint of warm water, to be used as a vaginal injection two or three time a day.

Attention is called in a contemporary to the duration of vaccinal immunity. After stating the views of several writers, the conclusion is reached that this immunity may disappear at the end of two years, even in the adult. From that time vacination may "take," and, what is more, variola may develope. If this is true, then the custom usually followed by

insurance companies of considering the presence of a pronounced vaccinal scar upon the body of an applicant as all-sufficient proof against small-pox is not good insurance protection.—Health.

CHOREA TREATED AS A RHEUMATIC AFFECTION.

By Dr. Chas. H. Brown, Washington, D C.

October, 10, 1895, a girl aged 10 years, came under my care and treatment, with the following history:—

A little over a year ago she commenced to become very nervous and irritable, and the muscles of the face and hands began to jerk and twitch. This soon became apparent in her legs and feet, most in the right side, the clonic spasms rapidly increasing until the previously bright sunny face of this intelligent child became twisted into the oddest grimaces, almost constantly, and were so changed as to give an idiotic expression. She complained of pain in her back and limbs, though there was no swelling or redness.

Her physician gave her the usual treatment recommended for the disease, and in spite of all that was done she gradually grew worse, until at the end of three months she was helpless and could not dress or undress herself, and was obliged to be waited upon and fed like an infant. During sleep was the only time she was free from the clonic spasms for a moment. Her appetite was variable and constipation was very troublesome, and could not be overcome by any amount of cathartic remedies,so enemas had to be given daily. When she first came under my care she could not walk without assistnace and seemed to have but little control over her legs and was so weak she could scarcely stand.

The nervous symptoms were as described above, and she had become very much discouraged. The action of the heart was irregular and weak, with mitral systolic murmur.

Her principal complaint was pain in her back and legs, occasionally sharp, cutting pains in her forearms and hands.

Recognizing the fact, from experience, that a great majority of cases of chorea have rheumatic diathesis acting as a powerful predisposing cause, I was led to prescribe elixir salicylic comp. She was taking several remedies when she came to me, all of which were discontinued, and the elixir given in teaspoonful doses four times a day. I saw her again two days later, and a very marked improvement was manifest; all the muscular movements were less severe, and her mother declared that she had not been so quiet or felt so well in the past eleven months. The treatment was continued, and at the end of one week she could walk about unaided, the muscles of the face had become perfectly quiet and there were but slight spasmodic movements of the hands, and that only occasionally. Twenty-two days from commencement she had no indications whatever of chorea, and the pains have all disappeared.

Dr. Hughes, at Guy's Hospital, ascertained that "out of 104 cases in which special inquiries were made respecting rheumatic and heart affections, there were only fifteen in which the patients were free from cardiac murmur, and had not suffered from a previous attack of rheumatism."

Nor is it possible to get over this fact by imagining that the pains of the supposed rheumatism may have been simply neuralgic and the cardiac murmur merely anemic, for in eleven out of fourteen cass of death from chorea recorded in the paper there were actual vegetations upon the cardiac valves.

The child affected with rheumatism is, after a longer or shorter interval, threatened with chorea, and the child affected with chorea is sooner or later affected with rheumatism. It may be explained, as Dr. Tuck well points out, that in adults rheumatism and chorea do not go together as they do in earlier life; that in earlier life rheumatism is far more frequently complicated with heart disease. "The younger the patient," as Dr. Hilier remarks, "the more frequently is rheumatism accompanied by endocarditis." Cardiac disease is also very common in chorea.

For many years it has been my custom to treat chorea with an infusion of cimicifuga, and usually the results were all that could be desired, but in a few cases recovery was somewhat slow. The cimicifuga given in form of infusion always had a more beneficial effect in the treatment of chorea than all other remedies which I have used,

but the elixir salicylic comp., I think, is a decided improvement over the simple infusion, as it is without doubt one of the most potent remedies for all rheumatic affections, and contains salicylic acid, sodii bicarb., potass. iodidi, tr. gelsemium, and as it is prepared as a pleasant and agreeable elixir can be administered to children or persons with irritable stomachs. It is a very valuable remedy as prepared by William R. Warner & Co.—"Medical World."

INFECTION BY THE GAS-BACILLUS

By O. T. Maynard, M. D., of Elyria.

Mr. M., aged 78, who had always been a healthy, very active and successful business man, met with unexpected losses that taxed his mental powers to the utmost for the past year. On May 1 he ate his breakfast as usual, with the exception that he ate rather more heartily, and ate a banana, which his people never knew him to do before. The day was rainy and he walked to his office without rubbers, and there found unexpected complications causing a great mental and nervous strain. At noon he walked home, feet still damp, and said he had a pain in his stomach which he noticed before leaving the office. He ate no dinner, and at two o'clock vomited a part of his breakfast, and his bowels moved freely. He undressed, giving up going to the office; the pain increased and 2 a. m., May 2, I was sent for, found the patient still vomiting undigested food, and with a severe pain in the stomach, causing profuse perspiration. The temperature was normal, the pulse eighty. On account of the stomach rejecting everything, I gave him a hypodermic of one-fourth a grain of morphine and a one hundred and twentieth of atropin. I left him easy and sleeping at four o'clock, called again at ten and found him resting, continued giving him antiseptics and nux and ipecac in small doses. He was without pain during the day, but sweat rather freely and seemed prostrated. At 6 p. m. he complained of a pain in his left hip just in front of the great trocanter; the nurse rubbed it and he slept from eight to ten, when he awoke with pain in the same hip and when the nurse rubbed it she noticed a little swelling, and when rubbed it "cracked." The pain and swelling increased. At 2 a. m. on May 3 he got up, walked to the closet and back, and I saw him at 3, when I found the temperature 103 degrees, pulse 120. There was great pain in the hip, and a swelling as large around as a breakfast plate sharply outlined and about one inch and a half thick, reaching nearly to the sacrum, covering the great trocanter and decidedly emphysematous. I could get no history of any severe injury. He had fallen in the winter upon stone steps, but never made any complaint of his hip. After a careful examination and not being able to find any cause for the emphysema, I told the family I considered the case serious and asked for counsel. Dr. Cushing arrived about 5 a. m., but could not give no new light on the case. At 8 a. m. we met there again and decided to open the swelling, which had continued to increase; we did this under the influence of cocain; on cutting through the deep fascia the gas escaped freely and a grumous broken-down material full of parts of decomposing muscle followed. A finger passed into the opening found this kind of material as far as the finger could reach in all directions; a large drainage tube was put in and the hip dressed. There had developed a marked icteric condition, and the mind was not just right; these symptoms increased during the day, as did the swelling, the emphysematous condition extending to the foot, but he suffered no pain after it was opened; gas continued to escape all day through the tube. He died at p. m. on May 3.

Necropsy twenty-two hours after death; the patient was well nourished. The general appearance of the body was that of a person having been dead three or four weeks. There was general emphysema, and a very dark look; the muscles of the chest and abdomen were softened. I was able to tear them up with my finger. All of the internal organs were softened in the same way, but aside from that there was no evidence of a diseased condition in any of them. The intestines were opened in situ, but were not removed and washed.

The muscles of the hip were all broken down and disorganized, but

there was no pus or diseased bone to be found—in fact the necropsy was negative excepting to confirm us in the belief that it was a case of auto-infection in a patient already debilitated by overwork and over-anxiety; digestion having been arrested by the mental condition and cold, the ptomains were rapidly developed in the undigested food and absorbed into the system, and probably some of the microbes finding their way into the tissues, through minute unrecognized ulcerated places in the mucosa of the alimentary canal, causing the decomposition of the muscles while the patient was still living, the reason for the location of the gas-bacillus in the muscles of the hip in so circumscribed a manner still remaining a mystery. I find that in the New York Medical Society Dr. Ferguson, of Rensselaer county, described the histories of eight cases which very closely resemble the above, in which the chief feature was the sudden onset of symptoms—vomiting, at first of watery mucus containing a few dark specks, and later the vomiting of coffee-ground material and the development of a slight icterus. Death occurred in about forty-eight hours. The cases were not in the same locality and occurred at different times, extending over a period of a number of years. In the necropsies there was no evidence of intestinal obstruction, peritonitis or sepsis, but the liver was the seat of parenchymatous inflammation, with softening and acute atrophy. Intestinal obstruction could certainly be excluded in some of the cases, as, for instance, the one in which there had been free movements of the bowels up to the day of death. The only explanation that he could offer was that the condition was an acute toxemia resulting from the accumulation of a bacterial ferment or an enzyme in the blood, or else that through extraordinary influence of the nervous system the digestive and assimilative processes were so interfered with that a virulent form of poisoning was produced.—Cleveland Journal of Medicine.

The Growing Development of Practical Medicine

IN HAEMATHERAPY, OR BLOOD TREATMENT.

BLOOD, AND BLOOD ALONE, is physiologically ascertained to be the essential and fundamental Principle of Healing, of Defense, and of Repair, in the human system; and this Principle is now proved, by constant clinical experience to be practically available to the system in all cases, to any extent, and whenever needed, internally or externally.

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Apart from private considerations, these facts are too momentous to mankind, and now too well established to allow any further reserve or hesitation in asserting them to the fullest extent.

We have already duly waited, for three years; allowing professional experimentation to go on, far and near, through the disinterested enthusiasm which the subject had awakened in a number of able physicians and surgeons, and these daily reinforced by others, through correspondence, and by comparison and accumulation of their experiences in a single medical medium adopted for that provisional purpose.

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