

theless, observe, that in most of the cases on record, bearing intrinsic evidence of belonging to the disease under consideration, the morbid growth has had its origin either in the common integuments, the mucous membrane, or in the cellular tissue. Doubtless it may originate in other textures, as was with the case quoted from Breschet, where it commenced in the thyroid gland; but many of the cases in which it is said to have occurred in the bones, in the viscera, among the muscles, &c., are, to say the least, equivocal, and no doubt some of them were of a carcinomatous nature."—Watson on Telangiectasis, *American Journal of Medical Science*, No. 47.

The treatment of the class of aneurisms by anastomosis, to which the preceding cases belong, may be conducted on three different principles. 1. Removal of the morbid structure. 2. Diminution of the arterial supply. 3. Effecting change of structure.

Each of these plans may be executed in a variety of ways, and they may be variously combined. For instance, in cases IV. and V., the second and first were conjoined, and in my case the second and third. To attempt the first plan in such tumours as the preceding, without its being preceded by the second, might be attended with the most serious consequences—the gush of blood might prove instantly fatal. Hence the safest and best method of cutting off the arterial supply is a question of some interest. The minor operations by which this has been attempted are four in number; 1. Pressure over the arteries. 2. Taking them up. 3. Making incisions through the scalp around the tumour, and taking up the arteries. 4. With needles and sutures as done successfully in M'Ewans case. As examples of these different practices are recorded in the preceding cases, I will leave the reader to draw his own inference as to their comparative merits. When the obliteration of the feeding arteries is accomplished, by whatever means, I feel assured, that in many instances at least, further proceedings will be uncalled for.

It may be thought by some, that taking up the carotid artery would be the most effectual means of cutting off the arterial supply. But from the statistical fact that the average mortality, after ligature of this vessel, for aneurism is 1-6th,* from the unsatisfactory result in Wardrop's case, and from the obliteration of the right occipital and temporal, in my own case, not proving sufficient to arrest the circulation in the tumour, I conceive it may be fairly deduced, that tying the carotid artery for this disease, is an operation hazardous in its consequences and uncertain in its effects. Nor is the latter inference to be wondered at, when we consider the free anastomosis which exists between the vessels of both sides of the face. Dr. Easdaile's case can hardly

be said to be an exception to this rule, for it is reported on the thirteenth day after the operation, when the cure was not complete, and after which the arteries of the opposite side were likely to enlarge. There are cases where the trial of tying the carotid must be made, or the patient must be left to die, as, for instance, when the tumour is seated extensively in the fauces, velum, and roof of the mouth, but these do not come within the range of the present paper.

With regard to the third plan of treatment, I doubt not from recorded facts, that in the superficial forms of this disease it may answer well, but from what I observed in M'Ewans case, I am convinced that, in such cases as his, any attempt at this mode of treatment, without first diminishing the arterial supply, will not only prove a loss of time, but be liable to worse consequences than failure. After the arterial supply has been cut off, should the tumour still remain soft, setons may complete the cure.

Within the last few months *electro-galvanic action* has been successfully employed to effect the consolidation of aneurism, by Dr. Pétrequin, chief Surgeon to the Hotel Dieu at Lyons. Three cases have been treated by him with electricity, but two of his patients have been lost sight of, before the influence of the treatment could be duly appreciated. The following are the interesting particulars of the third case.

"CASE.—Traumatic Aneurism of the temporal Artery. D., aged 19, a locksmith, was brought to the hospital senseless, on the 4th of August, 1845, immediately after a violent fall on the head. The lower maxilla was fractured at the symphysis and the left orbit was the seat of considerable ecchymosis. The symptoms of cerebral commotion had given way in a great measure when variola declared itself. The eruptive fever accomplished its periods in the usual manner, and it was only on September the 9th, five weeks after the accident, that Mr. Pétrequin could direct this attention towards a tumour occupying the left temporal region, and which he had noticed long before. The swelling was of the size of an almond, soft, and almost indolent on pressure; it was seated on the course of the temporal artery, and presented pulsations isochronous with those of the arteries. These pulsations ceased when pressure was exerted on the temporal artery below the tumour, and re-appeared on the pressure being removed. These signs left no doubt of the nature of the case, and aneurism of the temporal artery probably due to the injury experienced by the vessel during the accident, was diagnosed. On the 10th of September galvano puncture was performed by the introduction of two sharp steel pins crossing each other at right angles in the tumour; the heads of the pins were then placed in communication with the wires of a voltaic pile, and a shock and a sharp pain were experienced by the patient, the pain increasing with the intensity of the electrical action. The operation lasted ten minutes and fifteen plates were employed. The pulsations gradually diminished in the tumour during the operation and as we close had entirely disappeared. No accident followed the experiment, but a solid indurated swelling took the place of the tumour, the temporal artery ceased to beat above the aneurism, whilst its pulsations remained distinct below. On the 20th of September, absorption had achieved the cure, and neither tumefaction nor pulsations could be detected in the spot where the malady had existed. M. Pétrequin gives the following precepts, which he deems will ensure the complete coagulation of the blood contained in aneurismal tumours:—1. Compression of the artery between the aneurism and the heart during the application of the galvanic agency.—2. The pins introduced into the tumour should be numerous, cross each other

* Medical Times, vol. XIII., p. 147.