

VI. We are justified in believing that, alone, it would have succeeded more frequently if it had been practised with more perseverance and regularity than were employed in the above quoted cases.

VII. Never, so far, has any accident been attributable to this proceeding.

VIII. Having been applied successfully, for the first time, by Saviard, subsequently to an operation for aneurism after the old plan, indirect digital compression is essentially of French origin. Hitherto it has not received all the extension and generalization of which, in my opinion, it is susceptible.—*Dublin Quarterly Journ. Med. Sci.*, May, 1858, from *Gazette Hebdomadaire*, Oct. 30, 1857.

34. *Popliteal Aneurism cured by Pressure in twenty-six and a half hours.*—T. A. Cusack, Esq., reports (*Dublin Hospital Gaz.*, March 15) an interesting example of this. The subject of it, a tall, thin man, of good general health, aged 38, was admitted into Stevens' Hospital, under the care of Mr. Wilmot, Oct. 27, 1857.

Nine weeks before admission, while shoeing a horse, he received a severe strain in the right leg, from the animal making a sudden movement while the hoof was against his knee. He was thrown to the ground by the blow, but was able to go on with his work presently, and did not think much of the injury until the next day, when, after walking a mile, he found that the right knee had become stiff, and that there was a swelling behind the joint.

He continued to walk about for two days more, when a pulsating pain set in in the part, which obliged him to keep his bed for a month, by the end of which time this pain and the swelling had so far subsided that he was able to walk about a little, but could not take any active exercise, or return to his trade.

Up to the period of his admission, there has been but little change. His chief complaint now is, that any attempt at walking, or moving the limb, is followed by increased pain and swelling. He sleeps well at night, but feels a little pain in the day; otherwise he appears in excellent health. His pulse is 82, and very tranquil. The tumour lies quite at the lower end of the popliteal space, being covered up by the soft parts: so that, at first sight, it looks like a tumour in the muscles of the calf of the leg. On careful examination, however, the whole of the upper portion of the calf may be observed to pulsate, and a very distinct bruit is evident when the ear is applied. The tumour itself, as felt through the soft parts, may be estimated at the size of an orange; it is of a fusiform shape, and probably cages the bifurcation of the popliteal artery. It can be nearly emptied by direct pressure. He is a spare man, and the artery can be easily compressed in the groin, so as to stop all pulsation in the tumour. The foot is slightly cedematous.

*Treatment.*—On admission, he was ordered small doses of the tincture of digitalis (gtt. x, every six hours), in camphor mixture; he was also put on the low diet of the hospital, and advised to use but little fluid.

October 30, 8 P. M. A leaden weight of a conical shape, and weighing five pounds and a half, having been placed on the femoral artery, in the groin, it was found that there was scarcely any pulsation in the tumour, and that he could bear this amount of pressure without much inconvenience. He was ordered a draught containing twenty drops of the liquor morphiae, and it was hoped that he would be able to sleep with the pressure on. He was unable to sleep, but kept the pressure steadily on, except for about two hours, until half past seven the next morning, when it was removed, to allow him to sleep, having been on nine hours and a half. At half past nine A. M. (Oct. 31), the weight was reapplied until nine P. M., making, in all, twenty-one hours' pressure out of the twenty-five. The tumour had by this time become much more solid, and the anastomosing vessels on its surface remarkably distinct; the leg a little more cedematous than before; the foot kept warm by a water-bottle.

November 1, 10½ A. M. He has had a good night's rest. There is a small gland just where the pressure had been applied, which is tender; this, however, could be drawn to one side with the integuments, and the pressure was reapplied, having been increased to eight pounds, so as to stop off appreciable pulsation in the tumour. At four P. M., on removing the weight, which had been, on this occasion, applied five and a half hours (making in all twenty-six

and a half hours), it was found that the pulsation and bruit did not return. The limb was warm, and he had no pain anywhere, but the tumour felt hot and tender. He was directed to keep the pressure on for six hours longer, to make sure of a perfect cure. At ten P. M., all pressure discontinued; "repeat morphia draught."

*November 4.* No change since last report. The limb is maintained in a semi-flexed position, on a pillow, and he is kept slightly under the influence of opium. The surface of the tumour is so covered with anastomosing arteries that it almost seems to pulsate.

*9th.* The tumour is beginning to be smaller, and the cedema of the leg is subsiding.

*15th.* The tumour had so far subsided that he could not be persuaded to remain in the hospital any longer. Nothing further has been heard of him since.

Mr. Cusack, in his remarks on this case, observes:—

"When the almost uniform success which has attended the treatment of aneurism by compression in Ireland is compared with the unsatisfactory results which have often followed a similar mode of procedure in England and Scotland, the question naturally arises whether this circumstance is to be attributed to the general principle of treating the disease by pressure or to some imperfection in the particular mode of its application. On referring to some cases which have recently been treated in this hospital, of which the above may be taken as a fair sample, I am induced to think that the nature of the pressure, and the time during which it is kept up, whether continuous or intermittent, has much to do with the result.

When the compression treatment was first adopted in Ireland, it was, I think, laid down as a general rule that the pressure should be continuous, for which purpose instruments with two pads were contrived; or one pad was placed in the groin, and another lower down on the limb; so that, before pressure was taken off in one place, it was applied in another. Lately, this plan of treatment has been very much modified, and, as in the present case, the pressure has been applied periodically.

The successful result may, perhaps, be attributed to the more healthy condition of the patient's blood, which must be obtained by a proper amount of sleep, and to the more healthy condition of the integument at the seat of pressure, which, instead of ulcerating and sloughing, as it frequently does under continued pressure, may be reasonably supposed to regain its natural state during the interval of repose.

Another conclusion to which we are led is, that when once the fibrinous deposit has been caused to commence on the interior of the aneurismal sac, it is not washed away or reabsorbed by the restoration of the circulation; so that, when pressure is reapplied, the process of solidification is, as it were, taken up where it had been left off at the cessation of pressure. Indeed, the idea has sometimes occurred to me that, once the coagulum has commenced to form, it may for a short time continue to appropriate to itself the fibrinous element of the blood, even though rapid circulation is going on.

With reference to the intensity of the pressure, it was formerly laid down that a small stream of blood should be allowed to flow through the sac, as it were, to afford material from which the fibrin may be withdrawn. From the result of my own observation, I am inclined to think that this opinion requires modification. The treatment of aneurism by compression may be conveniently divided into two stages: first, that during which the collateral circulation is being developed; second, that period subsequent to its establishment, when the coagulating process goes on with greater rapidity.

In the first of these stages, I think the former opinion holds good, and that some blood should be allowed to pass through the main artery; but once the second period has arrived, as much pressure may be applied as the patient will bear, and certainly it should be enough to keep the wall of the main artery in contact: the establishment of collateral circulation being a guarantee that the vitality of the limb will be kept up, and that blood for the formation of a healthy coagulum is present in the sac.

Lastly, the pressure in this case was effected throughout by means of a conical leaden weight, the lesser end of which, about the size of an ordinary tourniquet pad, was applied over two folds of soft leather, to the artery. To keep the weight in position, and to direct the pressure, a stiff iron wire, which has been inserted into its greater end while the metal was melted, was passed through a ring fixed in a cradle, large enough to stand on either side of his pelvis.

From the satisfactory results which have followed the use of the weight, applied in this way, I am induced to hope that its simplicity and facility of construction may render it useful in the country, where a more complicated apparatus cannot readily be procured."

35. *Fracture of the Neck of the Femur within the Capsule.*—Dr. BYANT showed to the Pathological Society, April 6th, a preparation from a case of this kind.

Charlotte F., aged 69, an inmate of the Kent County Lunatic Asylum, upon November 20, 1857, was pulled off the edge of her bed by a child, and fell upon her right hip. There was some pain in the neighbourhood of the hip-joint, but more particularly in the knee. The shortening was very trivial, and there was no eversion of the foot. The woman could partly flex her thigh, though not without pain, and there was no effusion. Some difficulty was experienced in detecting crepitus, which was accomplished, at last, by an assistant extending, and at the same time rotating the leg inwards. The long splint was applied, and kept on for some weeks; a bed-sore, however, appeared, and from this she sank exhausted, upon Jan. 8, 1858, seven weeks after the injury.

The specimen exhibited a genuine example of fracture of the neck within the capsule. The line of fracture was not direct, and upon one-half was not to be seen, unless some force were employed to separate the parts. The reparative process seemed to have progressed fairly, and if the bed-sore had not proved too much for her feeble powers, there seemed every reason to believe that perfect repair would have taken place.—*Med. Times and Gaz.*, April 17, 1858.

36. *Resection of the Head of the Femur.* By HOLMES COOTE, M.D., Ass't Surg. St. Bartholomew's Hospital.—I performed, in the month of September, 1857, at St. Bartholomew's Hospital, the operation of resection of the head of the femur on a pallid and emaciated boy, who had been suffering from disease of the hip, of two years' duration, followed by dislocation of the head of the bone into the sacro-sciatic notch; the formation of numerous abscesses, which had left profusely discharging fistulous passages; permanent flexure of the femur on the pelvis to more than a right angle; and great distortion of the spine. The particulars of the case have already appeared in the pages of another journal, where it has been correctly recorded as one of the successful instances of the performance of this operation; and so indeed it may be termed; for the patient has since improved in health, the fistulous passages have healed up, the limb is coming into its proper position, and the curvature of the spine is lessened. But I write this to record a protest against the very operation which I have performed, being convinced that very many of the evils ensuing from hip-disease, especially in young subjects, and nearly all those which are supposed to indicate the propriety of resection of the head of the femur, are due to pressure and friction between the opposed ulcerating articular surfaces, which, by the application of proper instruments, and by a due appreciation of the value of patience, admit of removal more often than is supposed. And here I may remark, that surgeons would do well to study again the anatomy of joints, and the signification of the different ligaments. The researches of the Webers have not received due attention; nor have many subsequent monographs been read. It will not be generally believed that the thigh cannot be bent backwards on the pelvis—that it is immovably fixed when it falls in a straight line corresponding with the axis of the trunk. When the lower extremity is thrown backwards, as in the act of kicking, the movement is between the pelvis and the lumbar vertebrae. Nor does the thigh admit of much rotation outwards, the ilio-femoral ligament restraining motion in that direction. When the limb is extended on the pelvis, the articulating surfaces are firmly