ANEURISM CURED BY PRESSURE.

By Edward Hutton, M.D., Surgeon to the Richmond Hospital.

MICHAEL DUNCAN, æt. 30, a laborer, of rather healthy appearance, but of intemperate habits, was admitted into the Richmond Hospital on the 3d of October, 1842. He stated, that ten days previously, while suffering from cramp in the right leg, to which he had been subject for the last year, he, for the first time, discovered a tumor in his right ham, which was then equal in size to a hen's egg; in three days afterwards he observed some swelling in the foot and ankle, and felt pain along the outside of the leg. At the time of his admission into the Hospital the tumor had somewhat increased in size, and was found to occupy the lower part of the popliteal space. It pulsated strongly, and when the femoral artery was compressed in the groin the tumor admitted of considerable collapse. The compression being removed, it again became extended, and the "purring thrill" attended the re-entrance of the blood into the aneurismal sac. The leg was somewhat swollen, and its veins turgid, and he complained of prickling sensations in the limb. His pulse was 60 and regular, and his general health appeared unaffected. The nature of his case was explained to him, and the operation of tying the femoral artery proposed. To this he declined to submit in the first instance, and expressed a desire that other means might be tried. For three or four weeks he maintained the horizontal posture, and a compress and bandage was applied; but as the tumor gradually increased in size, and as he suffered pain from the pressure, this treatment was discontinued.

November 1st.—The patient being still reluctant to undergo the operation, I resolved to try compression of the femoral artery, and I entertained some hope of success from being informed by Mr. Adams that the late Mr. Todd had succeeded in a similar case, of which no account has been published. Having at hand an instrument constructed for the suppression of secondary hæmorrhage after ligature of the femoral artery, I applied it in this case. It was so contrived as to admit of pressure being made by a screw and pad upon the course of the femoral artery, and the counter pressure upon the opposite surface of the limb without interfering with the collateral circulation.

In the first instance the compression was made upon the femoral artery in the middle third of the thigh, and although it was effectual in compressing this vessel it produced so much uneasiness that it could not be sustained, and after a few applications the apparatus was removed and adapted to the upper part of the limb.

12th.—The femoral artery was compressed as it passes from the pelvis under Poupart's ligament, and the pressure maintained for more than four hours.

14th.—The tumor feels rather more solid; the purring thrill, before felt on the re-entrance of the blood into the sac, is no longer sensible; the pulsation as before.

18th.—No change in the tumor.

19th.—The circumference of the limb at the seat of the tumor is a quarter of an inch less than at the last measurement.

22d.—Duration of compression three hours ; the pulsation returned after its removal.

24th.—Artery compressed six hours ; same result.

25th.—He was unable to bear the application from soreness in the groin ; he complained also of some pain in the tumor.

26th.—The compression was resumed, and continued for four hours ; when the instrument was removed, the pulsation had ceased in the tumor, which felt solid, and was free from pain.

27th.—The pulsation had, in a slight degree, returned ; compression applied for six hours.

28th.—No pulsation was now felt in the tumor. It had decreased in size, and was solid.

29th.—The compression was maintained six hours ; no pulsation can be felt ; compression applied for three hours.

December 1st.—An artery, about the size of the temporal, is felt pulsating along the course of the tumor, which is quite solid, much diminished in size, and is altogether free from pulsation. The use of the instrument was now discontinued. The femoral artery pulsates naturally.

On the 7th of December the temperature of the legs was examined at the calf.

Temperature of the aneurismal limb, 86 deg. Fahrenheit ; of sound limb, 30 deg.

			Aneurismal.	Sound Limb.
December	12th.	—Temperature	88 deg.	90 deg.
"	20th	"	90 "	91 "
"	21st	"	91 "	91 "

On the 27th of December the tumor was reduced to the size of a small walnut, and felt very hard. He was this day discharged at his own request.

In six weeks he visited the Hospital at my request. The tumor was about the size of a nutmeg, and solid. He had been at his usual employment.

Remarks.—Since this case occurred, Dr. Cusack has treated with success, by similar means, a case of popliteal aneurism in Dr. Stevens's Hospital, and Dr. Bellingham another in St. Vincent's Hospital. It would appear that this plan of treatment has been too hastily abandoned by the profession, probably from the compression employed being so excessive as to render it quite insupportable to the patient. The least possible pressure which may be sufficient to close the vessel should be used, and when this cannot be sustained, it will prove of use to partially compress the artery, so as to lessen the impulse of the circulation. In cases where the aneurismal diathesis exists, this treatment would seem to be demanded before recourse should be had to an operation.—*Dub. Jour. Med. Sciences.*