CASE
OF
ANEURISM IN THE ARM,
CURED BY
TYING THE SUBCLAVIAN ARTERY.

BY DR. POST, OF NEW YORK.

COMMUNICATED

BY MR. COOPER.

Read Feb. 17, 1818.

A GENTLEMAN, aged twenty-seven years, came to this city on the 7th of September, 1817, for the purpose of obtaining my advice in relation to an aneurism of the left arm. He had been three or four years afflicted with the complicated effects of lues venerea, and of the remedies which had been employed for its cure; and at this time there were three extremely ill-conditioned ulcers on his left fore-arm.

The tumor was situated at the upper and inner part of the arm, and was first discovered about

three weeks before he came to New York. At this time, according to his account, it was about the size of a pullet's egg, attended by a pulsation, and an obtuse pain which extended to the limb below.

About fifteen days after he observed the swelling, while in the act of lifting a package of goods from a shelf in his store-room, he was seized with a violent pain in the tumor, which lasted about an hour, and gradually subsided. After this he observed the tumor to increase in size with considerable rapidity.

On the 6th of September he was again affected with violent pain in the tumor and limb, which induced him to request the advice of Dr. Gilbert of Newhaven, where he resided. The tumor at this time was larger than a goose-egg, and its base extended into the axilla. There were also two or three dark spots on the surface, near the apex, and the integuments at the most prominent part appeared very thin.

The nature and progress of the disease having been ascertained, Dr. Gilbert advised the patient to come immediately to New York for my opinion as to the means proper to be adopted for his relief; and as appearances justified the apprehension that the tumor might soon burst, a due support

was given to it by adhesive plaster, and Dr. G. accompanied him to town.

I saw the patient on the 7th, soon after his arrival in the city. The tumor at this time was extremely tense, and the pulsation strong in every part of it, and particularly at the apex. The discolouration which was very evident the day before, had in a great measure disappeared.

The importance of the case rendered it proper that some other gentlemen of the faculty should see it with me, and accordingly Drs. Kissam, Borrowe, and Mott were requested to meet me in consultation the following morning. At this visit, we were informed that our patient had experienced during the preceding night extreme pain in the tumor and the whole of the arm, which still continued with little or no mitigation, notwithstanding he had taken nearly four grains of opium. The tumor had increased very considerably since the day before, but the pulsation was so much weakened as to be perceived only by the nicest examination. The lower part of the limb had now also become considerably swelled.

The nature and progress of the disease rendered it necessary that very prompt measures should be adopted; and that of tying the artery above the tumor was thought the most eligible; and

one o'clock was the hour fixed for its performance.

The high situation of the tumor on the arm, and the extension of its base into the axilla, precluded the operation at this part, and it was therefore determined to tie the artery above the clavicle.

An incision, commencing at the outer edge of the tendon of the mastoid muscle, was carried through the integuments about three inches in length, in a direction deviating a little from a parallel line with the clavicle. This divided the external jugular vein, the bleeding from which required a ligature for its suppression; and in proceeding with the operation, three or four arterial branches were cut, which it was also necessary to secure. The subclavian artery was then sought for immediately external to the scaleni muscles, and was easily laid bare. Passing over the artery at this place, in contact with it, were three considerable branches of nerves, running downwards towards the chest from the plexus above. These were separated, and the ligature passed under the artery with great facility by the instrument well-adapted to this purpose, invented by Drs. Parrish, Hartshorne, and Hewson, of Philadelphia. On tying the ligature, all pulsation ceased in the limb; the edges of the wound were now brought

together, and secured by sutures and adhesive straps, and a light covering of lint finished the dressing.

The patient complaining of great pain in the whole course of the arm, eighty drops of tinct. opii were given to him, and he was put to bed. At the end of an hour, the pain continuing violent, forty drops more were administered, and this proving insufficient for his relief, an additional forty drops were taken at the end of another hour.

Five o'clock, P.M. The pain is in a great measure relieved; no sensible diminution in the tension of the tumor; he experiences a sensation of numbness through the whole arm; pulse eighty-seven; the temperature of the limb in no degree diminished; on the contrary, it seems rather greater than in the other arm, which probably arises from the covering of flannel.

Nine o'clock, P.M. Complains of very little pain; pulse considerably excited; skin hot and moist; the limb above the elbow has its natural sensibility.

Twelve o'clock. He is free from pain, but the fever is increased; pulse 110, with considerable fulness; skin moist; is inclined to sleep.

September 9th, seven o'clock, A.M. Has passed a comfortable night; pulse 100, and soft; perspiration free; the tumor less tense than last evening, but is considerably inflamed, and there are two livid spots at and near the apex about the size of a shilling. Ordered a saline purgative, and to have a dilute spirituous lotion applied to the inflamed surface.

Seven o'clock, P.M. The tension of the tumor still less, and the inflammation on the surface is diminished; the livid spots continue; the swelling of the limb below the tumor has almost subsided; the bowels have been evacuated three times by the salts; a gentle perspiration has continued throughout the day; pulse 90, and soft.

September 10th, seven o'clock, A.M. The patient has rested well throughout the night; pulse 94; the tumor is more flaccid, the livid spots have a darker hue, and its apex is more prominent and soft; a soft bolster was placed under it, so as to afford a moderate support.

September 11th, seven o'clock, A.M. Has slept most of the night; the tumor has diminished about one fifth; is less inflamed and livid; pulse 96; expresses a desire for food, and has permission to take a little chicken soup. On the evening of this day was a little more excited, and directed to discontinue his animal food.

September 12th, ten o'clock, A.M. The patient had a good night's rest; pulse 80; skin of the natural temperature; a slight pulsation can be felt at the wrist; the tumor diminishing, but seems ready to burst at the apex, where the contents appear to be confined by a covering not thicker than cuticle; the inflammation of the integuments has disappeared. Ordered to have an adhesive plaster applied over the whole surface of the tumor for the purpose of support, and to have his bowels opened by a repetition of the cathartic.

September 13th. The day passed comfortably, but in the evening there was a sudden gush of a small quantity of blood from the wound, which, however, soon spontaneously ceased flowing.

September 14th. The patient is quite tranquil; has a little bloody discharge from the wound; the ulcers on the fore-arm rapidly healing.

September 15th. The dressings were for the first time removed this morning, after having been softened by emollient poultices the preceding night. Adhesion of the sides of the wound had taken place to a considerable extent; the tumor had decreased about one half.

September 17th. In the afternoon the aneurismal tumor burst, and about three ounces of dark

coagulated blood were discharged ; a little lint was applied over the opening and retained by an adhesive strap.

September 18th. The wound was again dressed ; suppuration free, and the granulations tolerably healthy. The patient has complained of pain in the wrist and hand for several days, which has been particularly severe at night.

September 20th. The dressings were removed from the tumor, and about four ounces of grumous blood discharged from the aneurismal sac, which occasioned an entire disappearance of swelling about the part. The wound looking rather pale, and the discharge thin and discoloured, an infusion of bark was ordered, which was discontinued the following day on account of increased action and fulness of pulse. The patient after this had a febrile paroxysm daily till the 24th, which went off every evening by perspiration. At this time the wound had improved in appearance, the granulations were more florid, and the discharge more healthy.

September 26th, (18th day.) On dressing the wound this morning, the ligature with which the subclavian artery had been tied, was found cast off and lying upon the surface of the granulations.

September 30th. The wound is now nearly healed. The tumor has entirely disappeared, but there is a slight ulceration in the integuments where the blood was discharged, and a small oozing of serous matter, coloured in some degree, probably by a small quantity of blood in the sac, which is not yet entirely obliterated. The ulcers on the fore-arm have all healed except one, which is very small. The wrist and hand are slightly benumbed, and pain is felt in them, more especially at night. The pulsation in the artery at the wrist can be distinctly felt, but the strength of it has not perceptibly increased for some time past. The patient's general health is fast improving, and he is able to sit up a considerable part of the day and walk in his room.

October 11th. The wound is entirely healed; his general health is perfectly good; the pain in his hand is now confined to the extremities of the fingers, and is daily lessening; the power of using the arm is increasing every day.

October 16th. The patient having no complaints, except a little occasional pain in the fingers, and a small superficial sinus at the part where the aneurismal tumor ruptured, and being desirous of returning to the place of his residence, it was thought unnecessary to detain him any longer; and he accordingly left the city.