

albus existed. In the course of the last year, I met with thirty-five examples in my private practice at the Manchester infirmary, in which this was the case. In a few other instances, where complete blindness had taken place before I saw the patient, I did not think it proper to push the investigation so as to ascertain the point; for although I have always made the inquiry, respecting the presence of fluor albus, in an indirect manner, lest the patient should suspect that I considered her the cause of her child's misfortune, yet on more than one occasion that inference has been drawn. I may observe, however, that the general appearance and constitution of the subject have seldom left any doubt in my mind of the existence of fluor albus. Although from the frequent coincidence of fluor albus in the mother and the puriform ophthalmia in the child, I think it highly probable that these diseases stand in the relation of cause and effect to each other, I would by no means be understood to suppose, that fluor albus is the only cause of a puriform discharge from the eyes of an infant; nor do I imagine that the eyes of every child, which passes through a vagina affected with fluor albus, must necessarily be attacked with puriform ophthalmia, I merely think that such an affection may be apprehended; and if this view of the matter be correct, it leads to the following important points in practice: 1st, To remove, if possible, the disease in the mother during pregnancy. 2dly, If this cannot be accomplished, to remove, artificially, as much of the discharge as possible from the vagina, at the time of delivery. 3dly, To pay, at all events, particular attention to the eyes of the child, by washing them, immediately after delivery, with a liquid calculated to remove the offending matter, or to prevent its noxious effects.

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## VIII.

*Letter to Professor Loder of Jena, regarding the Operation of Spurious Aneurism* \*. By Professor SCARPA of Pavia.

ALTHOUGH there is so great a number of observations of the success attending the tying of the arterial trunk of the arm and thigh, in the case of spurious aneurism, arising from a wound

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\* See Loder's Journal, für die Chirurgie, &c. Dritten Bandes, erstes Stück, 8vo. Jena, 1800. p. 1.

of these arteries, as completely to remove any doubt of the propriety and advantage of the operation; and although, at present, no surgeon who is versed in anatomy, or skilled in practice, will be found, who, in such a case would propose the removal of the limb, yet I cannot refrain from communicating to you three cases of this nature, which have occurred to me within these few years; that if, at least in relation to the circumstances which accompanied them, they should seem to you to merit a place in the annals of surgery, you may make them known in your Journal. I am, &c.

SCARPA.

## CASE I.

*Aneurism, caused by Effusion of Blood from the Femoral Artery.*—

A stout countryman, 25 years old, of a good habit of body, in boring a hole with the point of a knife through a thin board, which he was supporting on the inner side of his left thigh, had the misfortune to wound the femoral artery, by the knife being pressed incautiously, with too much force, and passing through the board so quickly and violently, as to sink deep into the thigh, a little below the middle, in a slanting direction, from above downwards. The blood immediately rushed out in considerable quantity, and in the form of an arch, but was soon repressed by the application of a thick compress, and a pretty tight circular bandage. The following day he was brought, from a distance of eight miles in the country, into the hospital of this place.

As the surgeon of the ward into which he was brought dreaded a recurrence of hemorrhage, he did not remove the dressings until eight days after the accident, and he then found the wound completely closed and cicatrized. The patient got up and walked about a little. On the following day, the surgeon observed that the scar was elevated into a tumour, about the size of a small nut, and that it had a pulsation like that of an artery. Towards evening the patient was a little feverish. On the tenth day from the removal of the first dressing, and on the eighteenth after meeting with the accident, the whole of the left lower extremity, from the foot to the groin, was œdematous; the fever had increased; his strength was much sunk; and the swelling was augmented to the size of two thick clenched fists.

On being informed of these circumstances, I had the patient conveyed into the clinical surgical institute; and undertook, without delay, in presence of several students, the tying of the femoral artery, above and below the place where it was wounded. This took place the 22d October 1794.

After the patient was brought to the edge of the bed, and laid on his left side, with the knee half bent, I made the femoral artery

tery be compressed by an assistant, at the place where it passes under the crural arch; which was easily done, by means of a thick round button fixed to the end of a wooden seal-stick. I now opened the swelling longitudinally, with a convex edged bistoury, making an incision about ten inches long, from above downwards, through which an immense quantity of clotted blood issued, so as to fill a moderate sized kitchen pot. After clearing out the capacious cavity with a sponge, I perceived at the bottom of it the femoral artery bare; and the place where it had been wounded was seen quite distinctly, without it being necessary to diminish the pressure at the crural arch. The wound in the artery was somewhat more than three lines in size, running across, about the distance of four full fingerbreadths above the place where the artery passes the long head of the adductor muscle to get into the ham. As I could see the wound of the artery, I passed a probe through it into the canal of the vessel, and pushed it upwards about two inches; with it raised up the artery, in such a manner as to allow me to pass under it the common needle, with a double ligature of waxed thread; I then turned the probe round, and pushed it downwards in the artery; raised it below the wound in the same way, and surrounded it likewise with a double waxed ligature. I then secured the artery by the two ligatures which lay nearest the wound, and only drew the other two reserve-knots loosely round the artery, at the distance of an inch above and below the wound. I laid a small compress of linen between the ligatures and the artery. On the pressure at the crural arch being removed, not a single drop of blood flowed from the tied artery. Lastly, I filled the cavity of the tumour with soft charpees, which was retained in its situation by means of a compress and the six-tailed bandage.

After the operation was finished, which was of short duration, the patient fainted; however, he soon recovered, on vinegar being held to his nose, and complained only of a pricking sensation (*formicatio*), over the whole lower part of the extremity that had been operated upon. He took an emulsion, with twenty drops of laudanum, and slept quietly for two hours after. When he awoke, he said that the operated limb felt warmer than the sound one.

Next day the fever was greater; yet he had no longer so weak and contracted a pulse as before the operation.

On the fifth day, the great œdema, which extended from the foot to the hip, had almost totally disappeared, and there was a copious suppuration. The dressings were renewed, and the wound had a healthy look.

The 11th day. Whilst the necessary preparations were making

ing for the dressing, a hemorrhage took place. I immediately made the artery be compressed at the crural arch; and after removing the dressings, perceived that the blood flowed out between the ligatures, which I therefore drew tighter; the blood, however, still continued to flow. I now drew the two reserve-knots close, the upper one as high as I could, upon which the hemorrhage ceased completely. After this accident, the patient was so stunned and enfeebled, that he was seized with convulsive motions over his whole body, which did not cease till towards evening, and after he had taken a considerable dose of laudanum and strong soup. The day after, I ordered him *Decoct. Cort. Peruv. ℥ix. Ether. Vitriol. ℥i. m.* to be taken in small doses, in the course of the day, and to be continued the day following.

On the 20th day, I found the patient quite free of fever; and he begged earnestly for solid food, which I also allowed him. The bottom of the wound was almost of the same height with the integuments, and three ligatures came away with the dressings. The use of the decoction of bark was continued.

Towards the end of the fourth week after the operation, the last and uppermost ligature also came away. But the wound was not yet completely healed, as there was a sinus, which extended downwards three inches and an half from the lower angle of the wound. After it was laid open, the healing advanced gradually; and on the 25th day after the operation, it was completely cicatrized.

On the same day the patient got up, and walked a few steps with the assistance of a stick. During the three succeeding weeks he recovered his former strength, and left the hospital completely cured. I saw him about a year afterwards, and received from him the assurance that he had the same power in the whole left lower extremity as in the right, and could carry considerable burdens on his back as formerly.

## CASE 2.

*Spurious Aneurism, from Effusion of Blood out of the Humeral Artery.*  
—A weaver, 30 years of age, of a meagre figure, who never had had any severe illness, on the evening of the 4th July 1795, without any evident cause, was suddenly attacked by violent convulsions, during which he lost his senses, frothed at the mouth, and beat about him in a frightful manner, so that it required several persons to keep him in bed. He was in this state when the physician, who had been sent for, came. He immediately ordered him to be bled in the right arm, which was done accordingly. The lancet was scarcely withdrawn, when the blood sprung out with

with such force, that in a very short time the quantity ordered was drawn. The surgeon had considerable difficulty in stopping the blood; however, he succeeded, with the assistance of several graduated compresses, and a tight bandage. The patient passed a quiet night, after the epileptic fit, if it really was one, had ceased. The following morning, besides weakness, he complained much of the bandage being too tight, which the surgeon therefore slackened a little. The arm seemed swelled, tense, and was of bluish yellow colour, and the hand was œdematous. In the course of a few days, as the swelling and tension of the whole arm had not in the least diminished, but, on the contrary, rather increased, so as to occasion violent pain, he came into this hospital.

Mr Volpi, one of the most skilful surgeons of the hospital, found, in this case, two inches above the bend of the arm, a swelling, almost of the circumference of a hen's egg, which beat like an artery, yielded a little on strong pressure, but did not disappear entirely; and in which, when the humeral artery was compressed above, the pulsation ceased, but began again on the pressure being removed. He farther observed, that the arm of itself remained in a state of half flexion; that the extension of it could not be attempted without much pain; and that it was considerably swelled, and here and there marked with pale livid streaks. The patient had no fever.

Under these circumstances, after prescribing a proper diet, it was wished to try the application of Theden's bandage, kept constantly moist with the cold fomentation of Schmucker; however, this plan could not be long continued, as it increased the pain and immoveability of the whole arm. In the mean time, the aneurism, from the effusion of the blood, augmented considerably.

On being informed of this, I had the patient brought into the clinical institute, and resolved, in conjunction with Mr Volpi, to tie the humeral artery both above and below the wound. Upon this, after the application of a tourniquet in the arm-pit, I opened the swelling, through its whole length, with one stroke of a bistoury. Immediately after the mass of coagulated blood was cleared out, the trunk of the artery appeared at the bottom of the cavity, and the part where it had been wounded, which was about two lines and an half in length, was distinctly seen. After introducing a probe into the artery, from below upwards, in order to raise it up, I easily passed a ligature under it for the upper knot; I then turned the probe from above downwards, raised the arterial trunk in the same manner, and surrounded it with a thread for forming the under ligature. Both ligatures,

after small compresses were interposed, were drawn tight. On relaxing the tourniquet, no more blood flowed from the wounded artery. I filled the cavity of the swelling with dry charpee, and covered it with a compress, which was secured by a four-headed bandage, upon which the arm was carefully laid on a cushion, in a half-bended posture. After the operation, the patient took an emulsion, with 20 drops of laudanum. The pulse could not be felt in the least below the ligature; and the warmth was in some degree diminished. The patient remained quiet; but five hours afterwards a little blood appeared. The dressings were removed; but I could not discover from whence the blood came. I therefore again filled the cavity of the swelling with charpee, moistened with the styptic water, upon which the bleeding stopped. I made a steady pressure be applied, by an assistant, to the place operated on; and gave the patient, every three hours, some strong soup, and a spoonful of good wine. He passed a quiet night.

On the evening of the 2d August, the second day after the operation, some fever appeared. The patient was kept in the same way. The temperature of the arm was increased, and the patient had a good night.

Towards six o'clock in the morning of the third day, the dressings were again tinged with blood. The patient was pale; had a cold sweat; and a small contracted pulse. On removing the dressings I saw the blood come out, but evidently not from between the ligatures; I therefore applied a third ligature, as high as possible, to the trunk of the artery, but without the smallest effect. I therefore again had recourse to compression; and filled the cavity with charpee. Although the pulse could not be felt in the affected arm, the heat still increased, and was by one degree of the thermometer (Reaum. ?) higher than in the sound arm. The patient passed a quiet night.

4th day. The fever increased in violence; the temperature of the affected arm exceeded that of the sound by two degrees.

5th day. Fever still as violent. The pulse began to be perceptible, deep at the wrist. The dressings were a little moistened with pus.

6th day. I removed the outer parts of the dressings. The fever was the same. The pulse more perceptible.

7th day. As spots of fresh effused blood appeared on the charpee, I allowed it still to remain in its situation.

8th day. On complete removal of the dressings, I found the wound looked foul and pale; I therefore prescribed the following mixture:

℞ Decoct. Cort. Peruv. ℥ix.

Extract. ejusd. ℥ij.

Laud. Liq. gtt. xx. m. Cap. cochl. iv. omni bihorio.

At the same time he took frequently a strong soup, with yolks of eggs and wine.

9th day. I found the wound gangrenous, with a small pulse, and more than usual debility. I made a drachm of vitriolic ether be added to the mixture, and omitted the laudanum, and recommended the frequent use of soups and wine.

10th to the 15th day. The gangrene advanced. The wound was sprinkled with bark and camphor. The patient had a liquid stool, with some relief.

16th day. The fever abated, and the pulse rose a little. The patient expressed a desire for solid food, and he was allowed half a fowl, and the mixture continued. The gangrene in the wound did not advance. The dressings the same.

17th day. Fever diminished, and pulse fuller. The gangrenous surface began to separate from the sound, and two small pieces of bone came away from the inner condyle of the humerus; the one about the size of a pea, the other of a lentil.

18th to the 25th day. The state of the patient approached always more to convalescence. The slough separated completely. The ligatures came away, and another small piece of bone was separated.

26th day. I found the patient free from fever. The wound suppurated copiously; and the bottom of it rose in a regular manner. I ordered a simple decoction of bark. The dressings consisted of dry charpee.

27th August to 4th September. The cavity of the wound filled up always more and more, so that, on the 5th September, the wound was quite superficial, and was about three fingerbreadths in length, and a little more than one in breadth. In order to remove the remains of the œdema, I surrounded the whole of the arm, from the points of the fingers to the axilla, with a compressing-bandage. The diet of the patient was increased to a whole fowl. From the 5th to the 15th, I continued the use of the bandage and the above-mentioned dressing; I allowed the patient to make gentle attempts to extend and bend his arm, and ordered warm olive oil to be repeatedly rubbed into the elbow-joint. He got out of bed, and carried his arm in a sling. The wound was a little more than the third of an inch.

14th September to 15th October. The patient remained in the hospital as convalescent, and then left it completely cured. He now continues his trade of weaver, and uses the right arm as well as the left.

## CASE 3.

*Bursting of the Humeral Artery, from Gangrene at the Elbow.*—A boy, about 13 years of age, of a scrophulous weak habit, and almost from his birth blind of both eyes, was brought into the hospital to be cured of a scrophulous ulcer, which had appeared about a month before, near the inner condyle of the right humerus, and was surrounded with irregular edges, and indurated cellular membrane. After this unfortunate boy had passed about a week in the hospital, without any evident cause, but merely through one of those complications which are pretty frequently observed in such places, the wound was attacked by the hospital gangrene. This happened on the 1st October 1795. The wound suddenly became pale, swelled, discharged no more pus, but a thin fetid sanies; it then inflamed, and, along with it, the whole shoulder and arm; a violent fever arose, with a small contracted pulse, severe pain in the arm, anxiety, sleeplessness, and great loss of strength. The gangrene gradually spread above and under the joint of the arm. I immediately ordered the patient internally, a decoction of bark with vitriolic ether, as in the former cases, along with strong soup and wine. The wound was sprinkled with powder of bark and camphor.

On the 10th September, the destruction by the gangrene was so considerable, that the wound extended more than three inches above and below the inner condyle of the humerus, so as to allow the pulsation of the almost denuded trunk of the artery to be felt for a considerable way. It was therefore dreaded, every moment, not without grounds, that the artery would be corroded and burst. To add to the distress, the patient's strength was very much sunk; and he was every minute attacked by subsultus tendinum, and sometimes by hiccup. The violent tension of the arm continued; and there was no appearance of the gangrene stopping.

What I dreaded actually took place. The artery burst the following day. The attendant, who never left the patient, and who was instructed in all that he had to do in such cases, immediately applied pressure to the artery in the axilla, as the tourniquet could not be applied, on account of the tension, and painful swelling of the whole shoulder. The bleeding was stopped by that means. On the dressings being afterwards removed, the humeral artery was found to have burst exactly in the middle of the gangrenous wound. After having introduced a sound through this slit, from below upwards, the artery, which was already loosened by the sphacelus, was easily raised; and Mr Branca, who holds the situation of assistant-surgeon in the practical school, surrounded

ed it with a waxed ligature, by means of the common needle, somewhat more than an inch above the place where it was ruptured. The same was also done below the aperture. On the knots being tightened over a small compress, interposed below the ligature, the hemorrhage entirely ceased. The whole wound, as usual, was sprinkled with powder of bark and camphor, and covered with soft charpee, and a four-headed bandage.

Notwithstanding the great celerity with which this operation was undertaken and completed, yet even this small loss of blood from the artery, threw the patient into the most imminent danger of his life. By the uninterrupted attention with which strengthening remedies were given him, and by the plentiful employment of strong soups and wine, he was rescued from death. Immediately after the tying of the artery, the pulse disappeared, and the hand became cold. Four hours afterwards, it was found to be as warm as the sound one, and the patient complained of a distressing itching in it.

12th Sept. After a copious evacuation of fluid matter, the patient slept quietly for three hours, and his strength seemed a little better. The hand continued warm; and if the finger was laid gently on the wrist, on the opposite side to that of the wound, a deep motion could be felt in the radial artery, which disappeared if the wrist was pressed a little more.

13th. The temperature of the hand, and of the operated arm, exceeds that of the sound by three degrees. The swelling of the affected arm is considerably diminished, and the fever abated. On removing the dressings, the gangrene was found to have stopped; and in some points, was disposed to separate.

14th. The patient had passed a quiet night; and at day-break had had a liquid stool, with much relief. The fever lessened since yesterday. The gangrene has separated considerably at three places, and left the subjacent parts of a bright red.

17th. The temperature in both arms is the same; fever moderate. The patient begged for solid food, and he was allowed the quarter of a fowl. The use of the mixture was continued, but at longer intervals.

20th. The gangrenous slough has separated completely, and the wound looks well. The upper ligature has come away of itself.

22d. The under ligature fell out spontaneously, on removing the dressings. The fever gone, and the bottom of the wound seemed to be of an equal height with the integuments.

25th. The arm allows itself to be bent and extended easily; and the patient himself, with the assistance of the other hand, brought the operated arm repeatedly into the state of flexion and extension.

29th. The wound is almost completely healed.

1st October. The patient was raised out of bed, and placed on a chair, with his arm in a sling, and remained sitting for several hours.

10th. The wound is completely closed, and the patient moves his arm quite freely, with the exception, that he cannot make a complete extension, in which he is chiefly prevented by the scar. The pulse of the radial artery is still very weak, and only perceptible when the finger is applied to it very gently. After repeated friction with olive oil, over the whole elbow, the patient stretches out his arm tolerably well.

25th. The boy, who, as far as his weakly constitution would allow, was again restored to his strength, was dismissed from the hospital, and moved the right and left arm with equal power.

## IX.

*Concise Observations on Anæmia\**, a Disease which attacked all the Workmen of a Gallery in a Coal Mine, now worked at Anzain, Frenes, and Vieux Condé, near Valenciennes; and which has been observed and treated, in Four of these Workmen, at the Hospital of the School of Medicine of Paris. By M. HALLE, Professor at the School of Medicine at Paris †.

It is not my intention to give a complete detail of the disease which has attacked the workmen of the mine at Anzain, till the observations on it be completed, and till those commissioned to

\* Lieutaud (V. *Precis de Medecine Pratique*, pag. 75.) is the only person who has described this kind of disease, which is seldom idiopathic, if it be not confounded with chlorosis, to which it bears a very strong analogy. The symptoms which Lieutaud attributes to it, differ, in some respects, from those of which we here give the detail, and resemble them in others. Besides, the disease of which we are now speaking appeared epidemically, and was attended with an uniformity of symptoms which, in a particular manner, characterizes it; but a part of these symptoms may belong to the particular nature of its cause, whatever that cause may be. Their uniformity in all the patients who have been infected with it, clearly demonstrates that it is local, and that it belongs exclusively to those places where the disease has been contracted.

† See *Journal de Medecine, Chirurgie, Pharmacie, &c.* Par M. M. Corvisart, Leroux, et Boyer, Tom. IX. p. 3. 8vo. Paris, An. XIII.