RECOLLECTIONS OF WORK IN AN AMBULANCE.

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VII.

I HAVE now to speak of resections as performed in the upper extremity. There were but two of the shoulder, eleven of the elbow, and none of the wrist. There was one remarkable case (to be given afterwards in detail) in which I performed resection of both the shoulder and the elbow joints in the same arm. A reference to the table will show the proportion of secondary to primary resections, and the deaths after each, which was much greater in the former than in the latter type of operation. Of the six primary elbow excisions, only two died; while of five secondary, so many as four perished. Resection was performed whenever practicable in injuries of the upper extremity. Amputation was never practised for a gunshot injury of the elbow or shoulder which would admit of excision of the injured joint. On the whole, the results may be pronounced satisfactory. I may, however, quote the particulars of the case of excision of the shoulder, which proved fatal, as an example of how our very best operations died under the pyæmic influence.

CASE XL.—Gaugéard, a nice young fellow, a *sous-lieutenant* in the 53rd Regiment of the Line, was wounded at three o'clock on September 1st, near Balan. The ball passed right through the head of the humerus from before, backwards. The head and three inches of the shaft of the bone were removed by means of a single anterior incision, and carbolic dressings were somewhat carefully applied. On September 3rd, the wound was dressed. It was almost all healed. Some serous fluid flowed from it. On September 9th, he was going on extremely well. He had no fever nor other general symptoms at any time. So runs my brief report. In short, the patient was so far convalescent as to be walking about with his arm in a sling, quite happy and comfortable at the thought of his arm being preserved to him. He was regarded by every one as quite convalescent, when, on the 14th, we noticed beads of sweat upon his face—he had complained of feeling hot before; there was no distinct rigor, but the sweating was very profuse. The skin soon assumed a sallow tint; his eyes became sunken. An attack of secondary hæmorrhage, the prelude to the fatal issue, took place on September 21st; and, on September 22nd, he died. Thus in a short ten days was one of our best and most promising cases killed off; and this is an example of what happened in a dozen similar instances.

CASE XLI.—Gallerand, *Maréchal du Logis* 7th Artillery Corps, was wounded on September 1st by a ball which entered behind the left shoulder-joint, and, passing directly forwards, smashed the head of the humerus, and emerged in front. He was only sent to Asfeld on September 12th. On September 14th, I excised the head of the bone, just as in the last case, by a single anterior incision. Up till September 29th, the patient got on famously, and then symptoms threatening pyæmia made their appearance. He also had sweatings, but no marked shiver. Fortunately these unfavourable appearances soon abated, and Gallerand made an excellent recovery. He left the Hospital perfectly convalescent on October 6th.

I am very sceptical as to any treatment being of much avail in well-marked pyæmia. Some time ago, I had frequent opportunities of trying Professor Polli's antizymotic treatment by the bisulphites of soda or magnesia. It always appeared to me to do a good deal of harm, and never much, if any, good. Diarrhoea was induced by it, as well as vomiting, the abdomen swelled up with flatulence, and food was sooner refused. Perhaps the internal administration or inhalation of carbolic

Fig. 2.—Professor Esmarch's Splint for Resection of the Wrist.

acid, which in the hands of some would seem to prove an universal panacea, might succeed better. It would be well worth a trial, although I did not feel disposed to accord it one at Asfeld. For myself, I can place but little reliance in anything save quinine and opium, and plenty

of fresh air, and not much even in them, for staying the progress of pyæmic poisoning. When once developed, it is very rarely checked.

We had, as before mentioned, no cases of excision of the wrist-joint, but I may take this opportunity of mentioning the excellent apparatus of Professor Esmarch, who has treated cases of resection of the wrist with great success. The hand and arm are placed in a prone or semi-prone position on the splint (fig. 2), whose form is such as to leave the wrist exposed, and easy to be got at for the application of dressings. The whole apparatus *en fonction* consisting of a suspending rod, a plaster of Paris bandage, and the splint, is represented in fig. 3, and

Fig. 3.—The Splint applied.

the facility with which the patient could move about in bed, or adjust the position of his arm, is at once perceived. Dr. Patrick Heron Watson's anterior splint for resection of the knee-joint, and the American anterior fracture-splints, are similar in principle and application.

A modification of this apparatus might readily be applied in cases of resection of the elbow. But, unless for purposes of transport, it is not often necessary, nor even, I consider, desirable, to apply splints of any kind to excisions of this joint. The after purpose of the operation is to secure free motion in the new articulation, and the arm and elbow can usually be adequately and well supported by pillows. I myself never used any form of splint after excision of the elbow, and I found that great comfort to the patient, and great facility in applying new dressings, were thereby secured.

Besides those cases operated upon in Hospital, several cases of resection already performed were sent to us, and in some of these a very rough and ready method had been adopted for entering the wounded joint. The operator had cut transversely across the back of the elbow from one side of the limb to the other, sacrificing the ulnar nerve, of course, and making a huge unsightly wound. Pott's plan of a single longitudinal incision was the method I adopted in all save one instance, when I used the H-shaped cut, on account of the nature of the wound. The single incision may cause the operation to be perhaps somewhat more tedious, but it gives plenty of room, inflicts less damage on the soft parts, and the cicatrix is more satisfactory than after any other operation. This incision should be made towards the inner border of the olecranon, and, by keeping the edge of the knife close to the bone, the ulnar nerve need be neither exposed nor endangered. In several instances, amputation was performed for injuries of the elbow, but then the injuries were so extensive as to preclude the idea of saving the limb, and had been ordinarily produced by the explosion of a shell.

The number of cases of penetrating wound of the elbow under our care was very considerable. In the great majority, resection was performed usually at once, as the secondary operations did so very badly. In a few cases of elbow wounds, for one reason or another, expectant surgery received a trial.

CASE XLII is an example of recovery from penetrating wound of the elbow-joint without operation. Vivien was wounded by a ball which entered half way between the internal condyle and the olecranon process of the left arm, and emerged in front of the articulation over the head of the radius. The joint was therefore traversed from behind, forwards and outwards, and slightly downwards. An examination revealed but a small amount of damage. The patient was a young healthy man, and it was decided to give him the chance of getting better without operation. The case turned out in every way satisfactory, and he left the hospital convalescent.

CASE XLIII.—Auguste Soitel, 89th Regiment of the Line, presented another example of penetrating wound of the elbow, in which recovery took place. He was struck on September 1st by a ball which entered the posterior surface of the elbow, just over the head of the radius, breaking the bone. The ball emerged, after traversing the joint, a little above the internal condyle. No particular symptoms were manifested, and the man soon left hospital.

The following may be taken as an example of the cases sent into us from without, in which an operation for excision of the elbow had previously been performed.

CASE XLIV.—Louis Deroi was wounded on September 1st by a ball in the right elbow-joint. An operation had been performed in a Prussian field ambulance, on September 3rd, for removal of the injured joint by means of a single transverse incision across the back of the articulation. The patient was admitted to Asfeld on September 5th. The case did not get on well; and, on September 20th, the arm was amputated most skilfully by Dr. Wyman, and the patient eventually recovered, leaving Hospital on October 6th.

CASE XLIV.—Fauvartel was operated upon in a manner precisely similar for a shell wound of the elbow; but in his case a fatal result ensued from exhaustion, without further operative interference.

CASE XLV deserves special mention, as it is of unusual interest, and, I believe, unique in operative surgery. Louis St. Aubin belonged to the 3rd Chasseurs d'Afrique, a corps which has distinguished itself for extreme gallantry in every action in which it has been engaged. This young man, only twenty-three years of age, had his horse shot under him after receiving a bayonet thrust on his left cheek, the only one I saw amongst all the cases that came under my notice. He then got separated from his comrades. They had been in action all day. It was the fatal first of September, and the French troops were routed and flying towards Sedan. St. Aubin, though wounded and alone, had no notion of turning his back upon the enemy; he provided himself with one of the numerous Chassepôts lying about, and shortly after fell in with a small party of marines, a corps who have proved themselves amongst the very finest troops in the French army. These brave fellows, a mere handful, started forward to meet the enemy. But they had not gone far before the deadly fire from the Prussian batteries laid several of them low, and amongst the rest St. Aubin, who was struck by the fragments of an exploding shell on the right arm, which severely wounded both the shoulder and elbow joints. He came under our care on September 12th, having not in the interval received any special treatment. On examination, we found both the head of the humerus and the elbow joint extensively shattered. The soft parts were in both regions lacerated and contused. The injuries were so extensive that amputation seemed almost imperative, but I determined to attempt to save the limb if the extent of the deeper seated injury would at all admit of it. The poor fellow himself would not consent, all we could do, to take chloroform, so much afraid was he we might take advantage of his being asleep to amputate his arm, a mutilation which, under any circumstances, he refused to hear of. The operation had therefore to be undertaken without it; and, on September 14th, I proceeded to excise the shoulder-joint. It was only needful to extend the original wound, which had torn the deltoid muscle on its outer and anterior aspect, and through this I removed, in large fragments, nearly three inches of the upper end of the humerus. The operation was necessarily a protracted one, and the brave fellow bore it throughout, including the sawing of the bone, without a single murmur. I never saw such powers of endurance. It was, however, too much for my courage to inflict so much needless suffering; and, after faithfully promising to him that I would not amputate his arm, I succeeded, almost having to use violence, in making him inhale chloroform, before I attacked the elbow. I found the injury was here chiefly confined to the radius, and the ulna, which was a good deal split up. I cut off a thin slice of the condyloid end of the humerus, and cut out the fractured portions of the bones of the forearm. The original wound was here, also, on the back of the joint, in such a position as to afford of its being utilised in making the preliminary incision. The operation completed, the patient was removed to bed, and the injured arm laid carefully on a pillow. Antiseptic dressings and careful syringing of the wounds constituted the after treatment. St. Aubin's courage never flagged; he never complained. "J'ai du courage, moi," he used to exclaim; and when he was at the very worst, he would always assert "J'en guerirai."

Up till September 23rd, he got on well, and then pyæmic symptoms declared themselves. His temperature rose very high; his skin was yellow; he had rigors, and was delirious for a time. Then a deep abscess formed high up in the left side of the neck. I thought he was going the road so many others were travelling just about this date. However, he rallied, as such a brave fellow deserved to do; the abscess was opened, and a quantity of unhealthy pus discharged; the wounds began to look extremely well, and his spirits and appetite regained their wonted sway.

On October 8th, he was transferred, with the few other remaining patients of the Caserne d'Asfeld, to the Dutch ambulance just then arrived in Sedan. The Dutch surgeon, to whose care he was entrusted, courteously communicated to me the report of his condition up to November 21st. He says: "St. Aubin does not make much progress. The wound of the shoulder is healing up quite well, but at the elbow large abscesses have formed, which have undermined his constitution considerably. However, during the last few days he was improving

again. He is now in the Civil Hospital at Sedan, under the care of Dr. Duplessy, Surgeon-in-Chief of the Military Hospitals."

A short time since, I had the satisfaction of receiving a letter dictated by the poor fellow himself, in which he says, with grateful expressions:—"J'espérais écrire moi même, mais mon bras est plus malade depuis votre départ. Il est très enflé, de plus il s'est formé au coude quelques abcès qui me font souffrir, cependant j'ose vous le dire, Monsieur, je ne me laisse pas abattre, j'ai du courage. Si vous étiez là j'en aurais davantage. J'ai bon appétit, je n'ai qu'à me louer des soins dont je suis l'objet, je me trouve bien à l'hôpital."

It is to be hoped, for many reasons, that this brave young Frenchman will completely recover; and it will become an interesting question to learn what amount of usefulness an arm, from which both the elbow and the shoulder joints have been excised, will possess. I trust I shall be in a position, at some future time, satisfactorily to solve the problem.

CASE OF A RARE FORM OF PULMONARY HÆMORRHAGE: WITH BRIEF REMARKS.

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THE following case appears, owing to its rarity, to be worthy of record; and I am indebted to the kindness of Dr. Paget for allowing its publication.

J. S., aged 52, married, brickmaker, residing at Wisbech, was admitted into Addenbrooke's Hospital on November 30th, 1870, under the care of Dr. Paget. The patient was rather emaciated, and stated that he had been ill for four months, complaining of symptoms chiefly referable to the stomach; viz., a capricious appetite and intense pain after eating. He had had slight nausea, but had never vomited either his food or any blood. There was diffused tenderness in the epigastrium. He also complained of great pain across his loins. He had no cough or other symptoms indicative of disease of his lungs, and there was no abnormal cardiac murmur. The urine did not contain albumen. Ten days after admission, about an hour after taking his tea, florid blood suddenly commenced to flow from his mouth in quantities so considerable that a chamber-utensil was soon filled. During the bleeding, he had a violent fit of coughing. The hæmorrhage could not be controlled, and the patient died within twenty minutes from syncope.

I could not ascertain that the patient had suffered from any contusion or concussion of the thorax.

Autopsy.—The stomach contained a large quantity of black blood, but there was no evidence of any organic disease of this organ or of the duodenum. The mucus and blood clung to the stomach very tenaciously; and one spot, rather larger than a crown-piece, was tinged of a dark-green colour. (This appearance was probably due to some tincture of the perchloride of iron administered by the house-surgeon with a view of checking the hæmorrhage.) The heart was about normal in size, firmly contracted, and all its cavities were empty. The left ventricle was slightly hypertrophied, but the right was not so. The valves of the heart were all quite healthy, but the aorta was atheromatous. The base of the left lung, on being incised, was found to be infiltrated with blood; and at one point the texture of the lung was completely destroyed, and a cavity of the size of a hen's egg formed, which contained liquid and coagulated blood. In other respects, the lungs appeared quite healthy, being free from tubercles. The kidneys, liver, and spleen, appeared free from disease.

REMARKS.—The form of pulmonary apoplexy described above is, according to Niemeyer, exceedingly rare (*vide Niemeyer's Text Book of Practical Medicine*, seventh edition, translated by Drs. Humphreys and Hackley, vol. i, p. 162). I can find no mention of it in Wilks, or other English works on pathological anatomy. I am inclined to agree with Niemeyer, that the cause of the profuse hæmorrhage in such cases is atheromatous degeneration of the pulmonary artery, inducing its aneurismal dilation and final rupture. This view of the nature of the disease is to some extent supported by the considerable atheromatous deposit in the aorta in this case. Such instances of profuse hæmoptysis are, according to the authority above quoted, almost always rapidly fatal. The blood found in the stomach after death had, doubtless, been swallowed by the patient.

I am aware that cases of extensive and suddenly fatal hæmoptysis, due to rupture of an aneurism of a branch of the pulmonary artery in its passage through a vomica, have been recorded by Drs. Cotton, Quain, and others (*vide BRITISH MEDICAL JOURNAL*, Oct. 24th, 1868; and *Pathological Society's Transactions*, vol. xvii, p. 79); but the above