

ties of the chest and belly, and a fracture of the sternum, but nothing was to be observed in the vertebral column.

5. A maid-servant, aged twenty-one,\* of good previous health, fell down one stair, and hurt her lumbar vertebrae and left ilium so much that she had to be carried to bed, and was unable to move for a fortnight. She gradually improved, and at the end of two months was pretty well.

Eight months after her recovery she had aching pains in the legs, which increased; her legs "gave way under her;" and in five weeks she lost the entire use of her lower extremities, the action of the bladder and sphincter being also impaired. The sleep was much interrupted. A little improvement which occurred at first, ceased, and gradually the urinary and alvine evacuations passed quite involuntarily, all power and sensation were entirely lost in the lower extremities, and she died after sixteen months' illness, or twenty-seven months from the fall on the staircase.

Autopsy revealed both lungs studded with miliary tubercles. Considerable congestion in the spinal veins, but no evidence of disease in the spinal marrow. Scrofulous tubercles (some centrally softened, others of uniform consistence,) were found projecting from the pia mater into the grey matter of the hemispheres, one in the medullary fibres above and outside the corpus striatum, and one, the size of a nut, upon the inferior part of the cerebellum, having also apparently originated in the pia mater. The two layers of arachnoid were adherent.

It is difficult to trace any connexion between the blow this girl received and the tubercular affection of the brain from which she died. I have included the case, however, as furnishing a good example of a paraplegia which the history would naturally cause to be referred to spinal disease being really dependent upon disease of the brain. Whether the shock to the cerebro-spinal nervous system produced by the fall had any part in determining the affection is necessarily doubtful. It is worth noting, however, that in several instances claims for compensation have been founded on the occurrence of phthisical symptoms after shock received in a railway accident. The difficulty, we may perhaps say impossibility, of proving any association of cause and effect in such cases is obvious. But as regards the occurrence of tubercle in the cerebral meninges, the influence of violence in determining its production remains, I think, at the least, not improbable. The condition is, as is well known, very rare in adults, and not unfrequent in children. It is very common indeed to hear from the mother that a child affected with tubercular meningitis had received a blow on the head or had a fall some time previously. On the other hand, it must be remembered that children are continually falling and receiving blows. The following case was related to me by a medical friend.

6. A fair-complexioned girl of nine years, previously in excellent health, was thrown from a carriage on to the crown of her head upon the pavement. She was stunned for a short time only. After this her manner became characterised by excitement. She was easily moved to excessive laughter or tears, ceased to read, and gradually lapsed into a state of partial imbecility, becoming at the same time hemiplegic. Death took place twelve months after the accident. On post-mortem examination a small mass of tubercle was found in the middle of the right ventricle.

In such an accident as a fall down stairs, related in Case 5, the injury is not necessarily confined to the neighbourhood of the part struck. Concussion of the brain is no infrequent result of a fall upon the lower part of the spine, or even the feet; and in this young woman's case, although no mention is made of insensibility, it is quite possible that the cranial contents were shaken.

The following is a remarkable case of general shock, terminating fatally, with appearances after death of lung inflammation:—

7. A tradesman, aged fifty-eight, in good health, was in a train which met with a severe collision during the month of August, 18—. He received a blow upon the spine, and was thrown forwards and backwards in the carriage. During the delay which the accident occasioned, he rested on the embankment for some time. He complained afterwards of pain in his back, and showed symptoms of shock to the nervous system. For the first six weeks he could take no solid food, and for ten weeks he was unable to walk. During this period he suffered constant pain in the back, and occasionally in the head and limbs. His nights were almost sleepless. There was coldness and numbness of the legs, and occasional dimness of vision. Afterwards, for a short time, some improvement took place; he gained some strength, and could walk without assistance.

\* Guy's Hospital Reports, 1844, p. 265.

The pain in his back, however, increased; the general improvement he had shown did not continue, and he sank at last, about four months after the accident.

Autopsy revealed the pleura strongly adherent on each side of the chest, with soft hepatization of the lungs. The spine was examined, and found free from any signs of injury.

This would appear to have been a case of concussion of the spinal cord leading to pneumonia. Extreme congestion of the lungs, "splenization," as it is sometimes called, is a well-known effect of spinal injuries. Inflammation is also sometimes produced by damage to the cord. There is a spinal cord in the museum of the College of Surgeons which had been crushed in the upper part of the dorsal region. The patient lived three weeks. After death both lungs were found thickened by inflammation, and there were signs of pleurisy.

In Holmes's "System of Surgery," vol. ii., p. 242, reference is made to the case of a man who fell downstairs whilst carrying a heavy bag of hops upon his head. The extremities were completely paralysed for four days. He then regained the use of his limbs, but a few weeks afterwards died of pneumonia.

In an interesting paper upon Malingering (London Hospital Reports, vol. ii.), Dr. Woodman mentions an instance of a traveller who boasted that he had extorted large damages for nothing from a railway company, and died in less than six months from a thoracic aneurism, which was not unreasonably believed to date from the accident in question. I subjoin very brief notes of two cases in which aneurism followed railway accidents.

8. Mr. Everett, of Worcester, tells me that a gentleman, aged fifty-eight, previously in good health, sustained a severe shock in a railway collision, and received bruises about the legs, &c. He complained at once of pain in the lower part of the bowels. Two or three days afterwards he was seized with severe pain in the belly, became collapsed, and died in a few hours.

Autopsy.—An enormous amount of blood was found in the abdomen, the large clots dissecting up the peritoneum. It resulted from the rupture of a large fusiform aneurism of the abdominal aorta.

9. A private in the Guards was in a train which ran off the rails, and ploughed up the sandy soil for several yards, with excessive jolting. He was much bruised and shaken; but he concealed his injuries, and shrank from reporting himself and going into hospital, as he had been in the train without orders. Thus it happens that but little information is forthcoming respecting his case. Mr. Wm. Lane, Assistant-Surgeon Grenadier Guards, gathered, however, from his wife that from having been strong and hearty, his health gradually declined from the time of the accident. He complained of pain in the back, and of feeling very weak. He became at last too ill for duty, and was admitted into hospital about fourteen months after the accident. He was then suffering from diabetes. Death took place twelve days after admission from rupture of an aneurism of the superior mesenteric artery.

I do not think that there is any pathological relation between disease of the mesenteric artery and the presence of sugar in the urine, and the complication was probably a simple coincidence. Cases are on record in which diabetes has resulted from injury to the back part of the head, and this may possibly have been the cause in the present case. As regards the occurrence of aneurism, one can readily understand that in violent shocks and joltings, arteries may be subjected to a sudden strain, and may thus have their coats so weakened as to permit of dilatation and its results.

(To be continued.)

## LACERATED WOUND IN THE GROIN; OPENING IN THE FEMORAL ARTERY, WITH DIVISION OF THE FEMORAL VEIN AND LONG SAPHENA NERVE; AMPUTATION OF THE THIGH; DEATH OF THE PATIENT.

WITH CLINICAL REMARKS.

BY THOMAS NUNNELEY, F.R.C.S.,  
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GENTLEMEN,—In a former lecture I briefly alluded to the case of a man who had then just been brought into the infirmary with a small lacerated wound in the upper part of the right thigh, which I told you I should afterwards more par-

ticularly direct your attention to, as it would prove to be of far more serious import than, judging from its size, an ignorant or inattentive person would suppose it to be. In fact, it afforded a good illustration of how much more dangerous a character small deep wounds, whether punctured or lacerated, not unfrequently prove to be, than, from their size, we might at first suppose them to be. While a large superficial incised wound gapes widely, bleeds freely, and looks to the bystander very formidable, it very often is of no great importance; for the hæmorrhage, being from numerous small vessels, soon ceases spontaneously or by simple means, and the wound is easily brought together. On the contrary, a punctured wound, with an aperture of no large dimensions, may, immediately or remotely, involve the greatest danger to life, as in the instance to which I now call your attention. In fact, the medical practitioner who saw the man immediately after the wound was made had no suspicion of the grave character of the injury which had been inflicted; and yet, as soon as could be after the man's admission into the infirmary, it was thought necessary to amputate the thigh as high up as possible without including the hip-joint.

The patient, William B—, aged forty-three, a labourer at the docks, was admitted, late in the afternoon, into No. 18 ward, with a wound in the upper part of the right thigh. Our intelligent house-surgeon, Mr. Bradley, recognising the possibly grave character of the injury, at once summoned me. I saw the man within half an hour of his admission. His appearance as he lay in bed indicated a serious condition of things. His countenance was pale, sunken, and anxious; the pupils were widely dilated. He was restless; had a rapid, small, fluttering pulse. The right leg was colder than the left; and though the upper part of the thigh was enveloped in compresses and bandages, blood was freely oozing through them. He complained of intense pain in the limb. Though quite sensible, it was evidently a mental effort to tell his tale.

The patient stated that he had been assisting to put on board a vessel one of those very long cases containing heavy shafting for machinery, which, I dare say, most of you have seen passing through the streets upon wherries to the docks for exportation, and which are from sixteen to twenty feet long. This case had been suspended by chains to a crane for lifting on board a vessel, and, not having been swung in the exact centre, one end had caught upon the ground and dragged. This man, with others, was employed to prise up the end with a crowbar. For a moment he rested with the flattened head of the bar, about an inch and a half broad, towards his thigh, when suddenly, as the case was unexpectedly heaved up by the other men, it swung rapidly round and struck the end of the bar into the man's thigh with such violence that the poor fellow was thrown to a considerable distance, and great force was required to pull the crowbar out of the wound; upon which being done, an enormous gush of blood followed; as the man himself said, "several pints of blood directly ran out."

As obviously the first indication was if possible to arrest the hæmorrhage—and for this purpose it was necessary to ascertain its exact source,—I had all the bandages and compresses as carefully removed as possible. There was a small, transverse, ragged wound, about two inches below Poupart's ligament, in the front of the thigh, though somewhat more towards the inner than the outer side. The finger at once passed down to the bone, which was laid bare for upwards of an inch. The wound passed on the inner side of the bone to a depth which the finger could not reach, and its direction became perpendicular. The bone had evidently been struck, and turned the course of the iron bar. All the muscles were greatly infiltrated with blood; no femoral vein could be felt, nor was there any pulsation in the femoral artery, but the profunda could be felt quite bare for nearly an inch in space, and pulsating forcibly. Though the examination was made with as much gentleness as possible, the pain occasioned seemed to be intense. Blood welled up copiously; it was principally venous. The examination was made as rapidly and with as little disturbance of the parts as could be. While waiting for a consultation with my colleagues, I plugged the interior of the wound, so as to press upon the vessels as firmly as possible, with pledgets of lint, then placed over it and the front of the thigh dossils of cotton wool, and secured these with a firm bandage carried up from below the knee. There could be little doubt that both the femoral artery and vein were opened, if not divided, and that some considerable branch of a nerve was implicated; for though the wound was too much to the inner side of the thigh to involve the anterior crural, there was the long saphenous nerve on the vascular sheath, which might be torn, and the intense pain could hardly be otherwise accounted for.

Supposing this diagnosis, on a more minute examination than had hitherto been made of the wound, when means for preventing loss of blood had been adopted, should be proved to be correct, it was, on consultation, agreed that the only thing which would afford a fair chance for the man's life would be amputation of the limb. For even if the immediate danger from loss of blood were to be got over by cutting down and securing both ends of the wounded artery and vein, it was next to impossible that, with both vessels closed, the other injuries, and collapse from the loss of blood, gangrene should not supervene and speedily destroy life. But should it prove that the arterial blood had flowed from some small branch, the main trunk itself escaping, and the vein alone (for of its destruction there could hardly be a doubt) had been divided, then it was thought an attempt might, by tying both ends of the vein, be made to save the limb, and that doing this would afford at least as good a chance for the man's life as amputation of the thigh would do, inflicting, as it must in his depressed condition, an additional shock, from which there must be great danger of his not having sufficient vitality to rally.

To avoid the loss of any blood which could possibly be saved, the man was placed upon the operating-table, chloroform administered, and the abdominal clamp placed loosely over the aorta; for the wound was too high up to allow of the vessel supplying the limb alone to be compressed, as would otherwise have been preferable, inasmuch as not only would the circulation in the left limb have not been interfered with, but there would have been no danger of any of the blood which had circulated in the left limb being lost by regurgitation through the conjunction of the two iliac veins, which the pressure upon the vena cava by the clamp would to some extent induce, before any of the bandages were taken off the wound. So soon as these were removed the blood rushed furiously out of the wound, and, mingled with, and just to the outer side of, the larger dark venous stream, was a decided arterial jet, which no longer admitted of a doubt as to both artery and vein having been wounded. The clamp was tightened. The wound was enlarged upwards with a view of carrying an aneurism needle round the femoral artery, above the opening in it, and thus avoiding any loss of blood that could possibly be prevented during the operation, and the limb amputated as quickly as possible, at a level with the wound. A long posterior flap was left, as there the soft parts were uninjured, and also because the anastomosing vessels were most likely to be supplied with blood, as you know the branches of the profunda freely inosculate with those of the gluteal and other branches of the internal iliac artery. The bone was sawn through where it had been laid bare, on a level with the trochanter minor. The large flap was brought into position by several sutures of the flexible annealed iron wire—which you will have observed for some time past has been almost invariably employed as sutures, and which you cannot but have noticed possesses so many advantages over all fibrous material,—and supported by two or three broad straps of plaster, soft dressing, and a bandage. Hardly any blood was lost during the operation, and at the end of it the pulse was better than prior to the commencement. He was placed in bed, and an opiate in a wineglass of sherry at once given. This, you will have observed, is rather a favourite combination of mine in certain cases, whether rightly or wrongly I will not presume to assert; but I have a fancy that I have seen a more ready and more permanent rallying from great depression, particularly when this has been induced by great and sudden loss of blood, as in cases like this, and in parturition, than by the administration of opiates or pure spirits, alone or in combination.

The large pulsating vessel round which the ligature had been placed prior to the amputation was found to be the profunda, just at its origin. The femoral artery had a wound in it sufficiently large to allow a director to pass through. It had not been completely divided, and was patulous, though considerably shrunk in size. It was therefore tied about the point where the contraction in its coats began, lest these might be torn, as so commonly happens to arteries in lacerated wounds. The femoral vein was completely destroyed, and the long saphena nerve was found to have been entirely detached from the femoral sheath, and torn across some distance below the wound, showing how considerable had been the twisting force exerted.

Though he rallied somewhat, he never acquired a satisfactory condition. The pulse continued weak and rapid, he was very thirsty and restless, and complained of great pain. He died about thirty-two hours after the operation. A general decomposition of the whole body may fairly be said to have set in before death; indeed it might with truth be said to

have been going on from the time of the injury, for on the day following his death, the weather being intensely cold, the whole body was as much decomposed as is commonly seen after a man has been immersed in water for two months. It was swollen to nearly twice its natural size; the cutis was green and moist; the epidermis detached; the features unrecognisable; dark fetid fluid was springing from the mouth and nostrils; the scrotum was as large as the head, and the abdomen was distended to bursting. All the muscles were dark, rotten, and filled with air. The odour was disgusting.

Such rapid decomposition is not altogether without its value in showing the enormous depression of all the powers of life the injury and shock had occasioned. It never, I believe, occurs unless some most terrible depressing or exhausting cause has operated upon animal life immediately prior to death, by which the vitality of the blood and the nervous system, as well as the solid tissues, is utterly destroyed. Some diseases and some poisons, as the bite of the larger and more venomous serpents, perhaps some few vegetable poisons, intense fright and agony, particularly if accompanied with great physical exertion, as in hunted animals, will induce a like rapid decomposition. In ordinary death, though sensation, perception, and animation are destroyed at the moment of that change which we call death, yet the parts are not really dead at this moment; some vital force is still left in the organs, by which chemical laws are for the time resisted. These only gradually, and according to many circumstances, at varying periods, as vitality loses its power, acquire that force by which organisation is destroyed, and organic structures and products are resolved into chemical combinations.

I had intended to have directed your attention to those injuries which, by the common opinion of surgical authorities, call for immediate amputation of the wounded limb as affording the only means of saving life. In many cases there is doubt what should be done, and many circumstances must be taken into account to guide our judgment as to whether an attempt should be made to save the limb or not; for under different conditions in one case it may be our duty to try to save a limb which is injured to precisely the same extent as in another in which under other conditions it may be as clearly our duty to at once amputate; but there are certain injuries which always should be treated by amputation. It is of these that I had intended to have spoken; but as our time has so nearly gone, I must defer this important question until another opportunity, for which, ere long, one of those serious accidents from heavy machinery or railway violence, which we so frequently have to admit, will afford a fitting illustration and example.

Leeds, April, 1867.

THE

STATISTICS OF PUBLIC PROSTITUTION

IN ITALY.

By G. MACKENZIE BACON, M.D.

THREE years ago I published in THE LANCET (March 26th, 1864) an account of the Italian regulations on Prostitution, and gave some figures showing the beneficial influence of these means on the amount of syphilis prevalent, as well as on the character of the disease.

Having just returned from Naples, where I have had the opportunity of reviewing the subject after a further trial of three years, I venture to put before the profession the last statistics on what is, by a figure of speech, known as the *mal de Naples*, feeling that this may be a useful contribution to the literature of a topic just now of especial interest in our own country. The experiment now being tried in England of examining the loose women in certain towns seems to confirm the views so long held on the Continent as to the efficacy of inspection in controlling the ravages of syphilis; and one can only hope that the provisions of the Act may be extended over the country, though they are never likely to be enforced with the same rigour as by foreign Governments.

The following statistics give the results of the operation of the law in Italy during the past year; but the Venetian provinces are not included. They are derived from the Report of the Minister of the Interior, dated Oct. 31st, 1866, and presented to the Parliament in December last.

On Oct. 31st, 1866, there were, it appears, 7371 women registered as prostitutes throughout the kingdom of Italy, out of a population of 21,728,452: thus giving 34 of such women in

every 100,000 inhabitants. Of these, 1969 were under treatment for some sort of venereal disease, or about 27 per cent.; the infected women being distributed over 10 Sifilicomi, 65 civil hospitals, and 19 prison infirmaries—in all, 94 places of cure. The Sifilicomi—i. e., the hospitals in which the women are forcibly detained for treatment—are at Milan, Turin, Parma, Rimini, Florence, Naples, Capua, Lecce, Palermo, and Catania. Others are being prepared in Messina, Syracuse, Foggia, and Chieti. The mean cost per head daily was one franc fourteen cents, or a fraction less than a shilling, including all expenses, salaries, &c.

The following table shows the number of women registered in each of the six main divisions of the kingdom, with their relation to the population:—

—	Healthy	Under treatment.	Total.	Under treatment per 100 registered.	No. registered per 100,000 of population
Sardinian States ...	764	313	1077	29	26
Lombardy ...	515	193	708	29	23
Emilia, the Marches, and Umbria ...	610	279	889	31	25
Tuscany ...	364	60	424	14	23
Naples* ...	2455	864	3319	27	47
Sicily ...	694	260	954	27	43

\* The province, not merely the city.

M. Poggiali, director of the Sanitary Office at Naples, gave me, very courteously, some elaborate statistics referring to the city of Naples itself, from which I have selected the following points as of general interest. In the year 1863 there were altogether 1509 prostitutes under inspection in Naples, of whom 515 were carried on from the previous year, 545 presented themselves afresh for registration, and 449 were arrested and placed under surveillance, of which latter 223 were found infected. Of these 1509, 28 were under 15 years of age, 609 between 16 and 20, 531 between 20 and 25, 291 under 35, and 68 over that age. There were 151 married, 113 widows, the rest being single; and 1330 of the total were quite without education. Of the total, 150 were pregnant, of whom 48 went the full time, 36 were prematurely delivered, and 66 aborted, 17 only being syphilitic. They produced 48 children, of which 28 were living and 13 were born dead. At the end of the year, 22 of the 1509 had died, and 989 remained as a balance to begin the account of another year's sin.

April, 1867.

A Mirror

OF THE PRACTICE OF

MEDICINE AND SURGERY

IN THE

HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

A CASE OF QUOTIDIAN AGUE.

(Under the care of Dr. BASHAM.)

WE have been favoured by Dr. Maclure, registrar to the hospital, with observations of the temperature and analyses of the urine made by him in the following case:—

T. V—, labourer, aged thirty-four, admitted March 12th, 1867. He is a pale anæmic-looking man, somewhat emaciated and badly nourished. Has suffered for three weeks from daily attacks of shivering, followed by heat of skin and sweating. Each paroxysm comes on about half an hour later than that of the previous day. He has not been exposed to any malarious influences lately, as he has been working at the new buildings in Grosvenor-place, where he was employed when first attacked. He was formerly in the army, and served in the Crimea; but he states that his health was good while there. Pulse 66, feeble; tongue furred. Complains of much thirst. Bowels