of potassium with bark three times a day. The ulceration was thoroughly cleaned by poultices, and then dressed with an ointment composed of a drachm of unguentum hydrargyri nitratiss with five drachms of zinc ointment. Rapid improvement took place, and in three weeks the sore had quite healed, leaving a respectable looking ear, although, of course, there was much loss of tissue. During the treatment, the external meatus was kept open with pieces of lint; and when he left the hospital, although the external meatus was very small, yet the hearing was good.

This case illustrates how a local disease in a patient with syphilitic taint may resist all ordinary treatment until the specific nature of the case is recognised, and shows how soon such a case is relieved when suitable remedies are employed. This man might have been saved the loss of part of his ear, and also a dangerous illness, if the syphilitic features of the case had been diagnosed at an earlier period.

CASE III. Perforation of the Membrana Tympani, becoming permanent in consequence of delay in treatment.—A lady had suffered from a constant discharge from the right ear, with deafness, for several months. She was sent to me by Dr. Pollock, whom she had consulted for her general health, before which occasion she had not thought the ear-symptoms of sufficient consequence to require attention. I found a large perforation of the membrana tympani. By treatment with astringent lotions, such as sulphate of copper (half a grain to the ounce), and keeping the tympanum well washed out in the ordinary way, this patient gradually lost the discharge, and her hearing-distance improved from one inch to six, but the perforation remained. I believe that if she had been treated earlier, the opening might have been healed, and her hearing perfectly restored. The following case is confirmatory of this opinion.

CASE IV. Perforation of Membrana Tympani.—Mr. D. consulted me in January 1877. He was sent by Mr. Maunders. Seven days before, after a violent fit of sneezing, he found himself deaf in the right ear. He could only hear the watch when in contact with the ear. I easily distinguished a large perforation in the membrana tympani. The surrounding mucous membrane was in an unhealthy condition. I therefore prescribed a lotion of sulphate of zinc and carbolic acid (five grains of each to one ounce of water), to be used four times a day. In a few days, the condition of the mucous membrane had improved, so a solution of nitrate of silver (half a drachm to one ounce) was carefully applied two or three times a week to the perforation by means of a probe covered with cotton-wool. In a few weeks the aperture had closed, all signs of injury had disappeared and the hearing was quite restored. This patient was kind enough to call upon me three months afterwards, during which time he had been exposed to considerable changes of climate (travelling in Egypt), to let me know that the cure had been permanent.

A CASE OF FAT-EMBOLISM RESULTING FROM RUPTURE OF A FATTY LIVER.

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THE following case may be interesting to the readers of the BRITISH MEDICAL JOURNAL, from the fact that, so far as I am aware, there is no other record of a similar lesion in English literature, although the condition is very generally recognised by Continental pathologists. It is also particularly interesting, on account of the unusual situation from which the oil was derived which acted as the embolus.

The patient from whom the organs were taken was a lad about fourteen years of age, a native of Germany, and a sailor. While aloft, he slipped his footing and fell a considerable distance on to the ship's deck, alighting, from all accounts, on his right side. Although stunned with the fall, he soon recovered sufficiently to walk about the deck. In an hour or two afterwards, however, he became very much distressed; his breathing became embarrassed, coma ensued, and he died a few hours after the injury. At the *post mortem* examination, the liver was found to have sustained a few small ruptures, from which a little blood had flowed, but only a comparatively small quantity. The liver itself, however, was *peculiarly fatty*, and, for a lad of his age, unusually so; whereas the other organs seemed perfectly normal, so that the lung and kidney were retained as specimens of healthy organs, and were hardened in chromic acid for microscopic examination. The liver was rejected as a normal organ, on account of its being so fatty.

In due time, sections were made of the lung and kidney, and, in order to bring out their outlines more prominently, a half per cent. solution of perosmic acid was employed as a staining reagent. The

most extraordinary appearance was revealed by this means in the lung. The whole of the middle and smallest sized branches of the pulmonary artery were found to be plugged with oil, which now had a black colour, owing to the action of the perosmic acid.

Even the minutest capillaries, in many cases, were completely choked up with a large embolus composed of oil. The oil was generally in one large elongated mass, occupying the lumen of the vessel for a considerable distance, or it was in drops of various sizes closely aggregated together. The vessels seemed in great part empty, but, in other respects, the lung was perfectly normal. Similar embolisms were detected in the kidney, but only in very small number. The other organs were not retained, and consequently not examined.

Fat-embolism is a pathological lesion of the greatest importance, and has been described within the last few years more especially by Zenker, Wagner, and Busch. It generally happens that the subject of it has sustained a fracture of bone, or some operation has been performed necessitating the opening of the medullary cavity of a bone. The oil which so escapes into the surrounding parts becomes absorbed by the neighbouring blood-vessels and is carried to the right side of the heart, and subsequently into the lung. Here it gives rise to the most complete capillary embolism, entirely precluding the passage of the blood through the organ, the patient accordingly dying from gradual carbonic acid poisoning.

I am not aware that any case similar to the present has been recorded; but, on a little reflection, it can be easily seen that the liver might be an extremely fertile source of fat-embolism in certain diseased conditions. Those cases of death in a few hours after a simple fracture of bone or operation on bone must be familiar to every surgeon, but, up till the time that this very important discovery was made, were totally unaccounted for. No *post mortem* appearances worthy of note are found on naked eye examination, and the patient is generally said to have died from "shock", this term being thought quite sufficient to explain all deaths of this kind.

A case recorded by Czerny, in the *Berliner Klinische Wochenschrift* for 1875, Nos. 44 and 45, is extremely instructive. The patient, a mason, had sustained a simple fracture of the thigh, and died next day with symptoms of coma. There was great oedema of the lungs, with cyanosis, and microscopic examination showed the capillaries of the lung to be filled with clear fluid fat. Small fat-emboli were also seen in the cerebral vessels. I remember myself having seen, a few years since, a perfectly parallel case. The patient, a perfectly healthy young man, was brought into hospital suffering from a simple fracture of the thigh, and apparently was going on quite well until a few hours after admission, when he gradually became comatose and died next day, totally unconscious, within twenty-four hours after the injury. At the *post mortem* examination, absolutely nothing was found to account for death, and he also was supposed to have died from "shock". I have little difficulty in believing that this was likewise an instance of "fat-embolism".

LIGATURE OF LEFT EXTERNAL ILIAC ARTERY FOR FEMORAL ANEURISM: RECOVERY.

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J. McQ., 1st battalion 25th Regiment, aged 28, and of nearly six months' service, was admitted from Shorncliffe to Netley Hospital on May 26th, for a large aneurism of the left femoral artery immediately below Poupart's ligament.

On admission, he appeared very anxious and irritable, as he was suffering great pain. He stated that previously to his enlistment (December 1876) he was a sailor, and that he contracted primary syphilis in January 1865, which was followed by a suppurating bubo in the right groin. He, however, is a healthy-looking man, is married, and has had seven healthy children.

He gave the following account of his present affection. About the end of February 1877, whilst "doubling" in the barrack-square at Shorncliffe, he felt a prick like that from a pin in the upper part of the left thigh. No farther notice was taken of it until the end of March, when, in the gymnasium, vaulting the "horse", he suddenly felt a pain in the left groin, and, on applying his hand, detected a pulsating tumour about the size of a walnut. He was treated at hospital for some time; but the tumour increased in size, and he was attacked with pain in the knee and thigh, the latter becoming much swollen. He stated that on April 15th pressure was applied above the tumour, and continued interruptedly for many weeks, causing him