

patient was seized with a convulsive attack, which the friends described as a fit of ague, and died somewhat suddenly. Only a very limited post-mortem examination was allowed. A large rounded tumour was found on the front of the abdominal aorta, communicating with it by a large opening. It was situated just below the liver and close to the pylorus. The sac had ruptured into the stomach, the opening being large enough to admit a finger. The stomach was full of dark coagulated blood, some also being found in the intestines. Notwithstanding the fact that this tumour had been gradually developing for two years, and that the patient had also suffered from what he termed "lumbago of the spine," he had no idea of the nature of his complaint, though his brother afterwards told me that he suspected aneurysm the last time he saw him previously to his fatal illness.

I think there can be no doubt that in this case the sac had partially ruptured before I first saw the patient. A clot probably formed and plugged the opening until it was displaced on the occasion of the subsequent hæmorrhage. This would disprove the view, held by some physicians, that in cases of aortic aneurysm there are no preliminary hæmorrhages, but that the rupture of the sac takes place suddenly, followed at once by bleeding and death. I may also mention a case I saw in Professor Fraser's wards in the Edinburgh Royal Infirmary in the winter of 1881-82, in which preliminary hæmorrhages occurred. At the clinical lecture delivered upon the case the post-mortem specimen was shown. There was a large aortic aneurysm which had pressed upon the œsophagus, interfering greatly with deglutition. The sac ruptured into the gullet through two openings, causing hæmorrhage and death, but I am unable to state if one opening formed sooner than the other. It would seem somewhat remarkable that a large vessel like the aorta could rupture without causing immediate death, and yet there can be no doubt of it from this case. Further, in THE LANCET of Oct. 30th, 1886, page 814, there is a case described by Dr. W. A. Holmes, in which a rupture five-eighths of an inch in length apparently occurred three-quarters of an hour before death, and the pericardium was found on post-mortem examination to be filled with coagulated blood. In his remarks upon the case Dr. Holmes adds: "I have seen a specimen where the aorta ruptured, and the patient recovered and lived for months after, but died from a subsequent rupture." It is interesting to note that in the case of my patient there were hardly any of the secondary effects or evidences of pressure developed. There was a certain amount of emaciation, but no signs of dropsy or displacement of organs. This was no doubt due to the development of the sac in the abdomen, where there is room for large tumours to appear gradually, without much alteration of viscera. In the thorax there would, of course, have been interference with respiration and other symptoms of pressure.

Bilston.

THE INFECTIOUS AND INCUBATION PERIOD OF INFLUENZA.

By AUGUSTUS HENRY BAMPTON, M.D., M.S.

WHEN an epidemic is rapid in its manifestation and is widespread, it is difficult to determine offhand whether the disease is personally infectious or is conveyed more generally in the atmosphere similarly to blight. The following cases are examples of infection being personally conveyed, and are interesting inasmuch as they show duration of incubation, and at what stage it is infectious. Early on May 20th a nurse left home; later on the same day influenza broke out, and within four days six members of her family were down with it. Ignorant of this, the nurse went to her situation at the seaside, where there were no cases of influenza. On the 28th the nurse was seized with influenza. The two children in her charge were at once removed, the nurse isolated, and the room fumigated. On the 30th one of the children ailed, and on the following day was very ill. On June 1st the other child was down with influenza, and on successive days a fellow-servant, who had slept in the same bedroom, and the mother of the children, who subsequently nursed them, fell ill. The grandmother, who then did some nursing, also took it. There were no other cases in the village. It is evident that the period of incubation in the case of the nurse was eight days. This is, I believe, about the extreme

limit of the incubation period. Although the children did not go near the nurse after the disease developed, yet they were the next to be attacked, showing that the disease is acutely infectious from its earliest manifestation. If the nurse got it by personal contact, which is probable, she also must have taken it before it had fully developed. In several instances I have noticed a premonitory stage of forty-eight hours of biliousness and malaise, without rise of temperature. With some the disease goes no further, and leads people to argue that they are not susceptible, and therefore the complaint is not infectious. It may be that this premonitory stage and the period of incubation have been confounded one with the other by some observers, or it may be that they are sometimes identical. May I remark here on the importance of thorough disinfection of houses where persons have been attacked by influenza, if we are not to have another outburst. Cases occur in infected houses at a month's interval. It is the conviction of many that the disease was carried along railway routes, and lurks in the carriages! *Verbum sap.*

Ilkley-in-Wharfedale.

A CASE OF FOUR ATTACKS OF APPENDICITIS IN ONE YEAR; EXCISION OF THE APPENDIX; ABSENCE OF ANY FURTHER SYMPTOMS A YEAR AFTERWARDS.

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IN view of the recent discussions which have taken place regarding the treatment of this particular class of diseases, the record of the present case may not be without interest. The patient, Mr. G. G.—, a strong and healthy young fellow of twenty-one, was under the care of my friend, Dr. Alex. Napier, of Crosshill, to whom it had suggested itself that the case was one particularly well suited for the operation of excision of the appendix. He asked me to see the patient with him, and I concurred both in the diagnosis and in the treatment proposed. The clinical notes of the case, as kindly furnished by Dr. Napier, are briefly as follows:—June 4th, 1889: First attack slight, lasted only a few days, and subdued by rest and a few doses of an opiate. Constipation, pain, and tenderness in right iliac fossa, some distension; temperature not much elevated.—July 14th: Second attack, after lawn tennis, very severe; temperature ran up to and over 103°F.; pulse rapid; vomiting for several days; constipation; coated tongue. Marked distension, universal tenderness, and tympanitic percussion note. Most acute pain in right iliac fossa. Patient very seriously ill for a few days, but gradually recovered, as before, by rest, opiates, poultices, and limited diet.—Oct. 7th: Third attack, after some indiscretion in the way of exercise. Again a severe attack, much like the last; overcome in the same way.—April 2nd, 1890: Fourth attack, less severe than the last two, but marked by exactly the same general symptoms. In all four attacks, as the symptoms passed off, the pulse fell markedly—to 44 on one occasion. On April 8th I saw the patient with Dr. Napier, he was then recovering from his attack. We had him removed to the Training Home for Nurses, where, with the assistance of Dr. Rutherford, I excised the appendix on the 16th.—Operation: An incision was made in the nipple line, over the cæcum and ascending colon. The presenting bowel was traced downwards until the junction with the ileum was reached. The finger, then inserted beneath the cæcum, felt the appendix distended and fixed. It formed a tense elastic tumour about the size of a little finger. For about half an inch at its cæcal extremity it was normal in calibre, but from that point onwards the appendix was dilated. Around this narrow normal part of the appendix a double ligature was passed, and the neck divided between. In the first attempt to detach the appendix from its connexion it burst, and some mucus-like material escaped. The adhesions were in some places intimate, but at others recent and very vascular. After complete severance the oozing was so free that pressure had to be applied for some short time. The wound was dressed once after the operation, and healed by primary union. The patient's temperature was normal throughout his recovery, and no untoward symptoms of any kind showed themselves. He was kept rigidly on his back for a month to allow of firm union in the parietal wound.—State of the appendix: On sitting up the viscus it was