

which no nurse can really prove efficient or fit to train others in her turn. Then after three months she passes into the wards. The full training is for three years with a fourth year for Midwifery. The examinations taken are those of the North India Board of Examiners and the Punjab Central Midwives Board.

The Staff Nurses are all without exception members of the T.N.A.I., and since 1931 there has been a branch of the Student Nurses' Association the numbers of which have grown from 14 to 28.

APPENDICITIS

BY DR. FR. BAUER

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For centuries past, the world has known of the existence of an inflammatory disease affecting the lower, right-hand side of the abdomen, but it was not until 1886-88 that two American doctors ascertained that the malady was caused by an inflammation of the vermiform appendix of the caecum. This discovery—to which the disease owes its name of appendicitis—paved the way to a more thorough knowledge of the scourge. It is now becoming universally recognized that the only really effective way of treating appendicitis is to remove the offending organ as soon as it begins to give trouble.

Mortality from appendicitis has greatly diminished of late years, but, even in this enlightened age, the first warning symptoms are all too often ignored, with the result that, when he is eventually rushed to hospital at the last extremity, it is too late to save him even by an operation, or, if the operation is successful, his recovery is considerably retarded.

According to the mortality statistics for Sweden, appendicitis is responsible for an average of two deaths per diem. In the United States, 500,000 cases of appendicitis were recorded in 1925, of which 25,000 proved fatal (or one every 25 minutes). Over 20,000 of these could have been saved if an operation had been performed within six hours of the first symptoms being observed.

It may not be superfluous, therefore, to direct the attention of the public once again to the symptoms and treatment of appendicitis.

Let us first examine the position of the Appendix. The first part of the large intestine is known as the caecum. Between this and the small intestine is the appendix, a worm-like pouch three

to six inches in length and about three-tenths of an inch in diameter, one end of which opens into the caecum, the other being blind. In structure, it resembles the rest of the intestine except that the walls are lined with a tissue similar to that of the tonsils. This tissue absorbs microbes with alarming facility and this induces swelling of the appendix. Moreover, as the appendix communicates with the caecum, there is a likelihood of matter from the intestine entering the appendix, where it hardens and eventually obstructs the orifice.

It is thus apparent that appendicitis is an inflammation due to microbial infection. As the contents of the caecum are rich in microbes, it may be asked why appendicitis does not occur even more frequently. The answer to this is that all the microbes of the intestine are not productive of disease; certain of them become harmful only when special conditions are present, such as gastric or intestinal catarrh.

Appendicitis frequently develops in persons never having suffered from stomach trouble. In such cases, it is generally due to the structure of the appendix itself and very rarely to the presence of foreign bodies, despite the popular fallacy which attributes the disease to the swallowing of fruit stones, pieces of bone, etc.

It will readily be appreciated that a centre of infection, however small, may become dangerous when it occurs in a region so difficult to reach as the appendix. If the infection is benignant, it may work out its own salvation in a few days, but these small infections often modify the structure of the organ and render it more susceptible to fresh infection.

Occasionally, even the more violent inflammations subside automatically, but the cure is longer and less thorough than after an operation, as adhesions often form between the appendix and neighbouring organs and these provoke defective functioning of the intestine.

The danger most to be feared in acute infections is the perforation of the appendix and the consequent escape of pus into the abdominal cavity. When this happens acute peritonitis sets in—a complication which is almost invariably fatal unless an immediate operation is performed. If the progress of the inflammation is slower, a focus of pus often forms close to the appendix, separated by adhesions from the abdominal cavity. Without the intervention of the surgeon, recovery is then very slow. It may also happen that the poisons generated by the pus enter the blood-stream, causing death from blood-poisoning within two or three days.

It will thus be seen how, from a minor ailment, appendicitis can develop into a grave or even mortal disease.

The present-day evolution of medical science enables us to identify the symptoms of appendicitis and to correct the nomenclature once applied to mild attacks of this disease: colic, gastricism, gastric fever, gastric catarrh, chronic constipation, and so forth. The more advanced cases were often erroneously diagnosed as inflammation of the stomach, peritonitis, liver trouble, etc. It is now realized that many of these complaints are the result of neglected appendicitis. The preliminary symptoms of this disease are usually easy to recognize, and it is highly important that the general public should be informed of them, for a human life often depends on such knowledge:

(a) The onset of the disease is often heralded by a feeling of tiredness, accompanied by nausea and digestive disturbances.

(b) The disease may also develop suddenly, for no apparent cause. In such cases, the first symptom is vague pain which subsequently becomes localized in the region of the appendix, which is normally situated to the right of and below the umbilicus (or navel). The position of the appendix being variable, certain patients complain of pain in other regions, descending sometimes as far as the right thigh and accentuated by movement.

(c) Another symptom is nausea, accompanied at times by occasional vomiting.

(d) At the end of a few hours, or a day, a very characteristic symptom usually makes its appearance: marked sensitiveness in the region of the appendix. This sensitiveness is not always very acute and is frequently difficult to verify, especially in the case of children, who scream and stiffen the abdominal muscles. It is never very easy to diagnose appendicitis in children.

(e) Every attack of any violence is accompanied by a rise in temperature, which sometimes attains as much as 102 degrees the first day or rises steadily over a period of several days. In certain cases of acute appendicitis, however, there is no increase of temperature at all. This latter point is very important indeed, for many lives have been thrown away because the patient or his relatives imagined that the absence of fever denoted something less serious than appendicitis.

(f) Pain often compels a patient to realize that he is gravely ill, but he nevertheless continues to pursue his occupations for some

days longer, although the subsequent operation may reveal that he had been suffering from appendicitis in a very advanced form.

(g) Young and middle-aged persons are especially prone to the disease, but it has been known to occur in the case of a baby of seven months and an old man of 93.

Appendicitis assumes a great variety of guises, and this renders it difficult to form an exact opinion as to the gravity of the case at the outset. The most skilful practitioner cannot always judge, from external signs, just how far the disease has progressed nor foresee its outcome. One of our leading surgeons once said: 'Each time I am confronted with a case of appendicitis, I feel the weight of my responsibility toward the patient. Whoever has not experienced that sense of responsibility does not know what appendicitis is.'

All that now remains to be done is to note down the most important points to be borne in mind in the treatment of appendicitis:

(a) Call in a doctor as soon as the first symptoms appear, i.e. sudden abdominal pains, accompanied by nausea and vomiting, and followed by a rise in temperature.

(b) Pending the doctor's arrival, put the patient to bed and place an ice-bag on the right side of the abdomen. He must have nothing to eat or drink, except a little water. Do not administer any other form of treatment whatsoever without doctor's orders. Avoid giving the patient laxatives or drugs, as their action is liable to hinder diagnosis.

(c) If there is no doubt in his mind that the patient is suffering from appendicitis, the doctor's duty is to have him admitted to hospital, as such cases need constant supervision.

(d) On arrival at the hospital, the patient will be examined without loss of time by the house physician, who will have been informed by his colleague of the symptoms observed. It is possible that the house physician may decide to await the development of further symptoms before accepting the diagnosis as positive, but the patient must not conclude from this that his transfer to hospital was unnecessary. The doctor has acted in the patient's own interests by refusing to run the risk of complications.

(e) The medical men of all countries concur in the view that prompt operation is essential in cases of appendicitis. The duty of the doctor is not only to cure his patient but to prevent any possibility of a relapse, and the only way to guarantee this is by removing the seat of the trouble. It cannot be too strongly empha-

sized that the evolution of appendicitis is impossible to foresee. On preliminary examination, an attack may appear benignant, whereas a few hours later it may have become so acute that even an immediate operation is powerless to save the patient.

(f) In acute cases, it is imperative that an operation be performed during the early stages of the disease.

(g) If the patient is suffering from other complaints (disease of the heart, lungs or kidneys) the surgeon will carefully weigh the risks of an operation.

(h) If the patient has already had one or more attacks of appendicitis he should be operated upon between the attacks.

There can be no doubt that, if the public would pay heed to these counsels, very many more patients would take medical advice during the early stages of the disease and thereby immeasurably increase their prospects to recovery.

(Communicated by the Secretariat of the League of Red Cross Societies, 2, Avenue Vélasquez, Paris VIII^o).

FLORENCE NIGHTINGALE LETTERS

10 South St., Park Lane, W.

August 21st, 1886.

My dear Sir,

I have to thank you for two kind letters, and your six proofs.

Since I wrote to you, I have sent to Lady Dufferin *Lankester's Practical Physiology*, *McKendrick's Animal Physiology*, *Huxley's Elementary Physiology*. These are those used in Girls' High Schools. But the authority says, 'The subject is one which does not require books to any considerable extent.' I suppose she means that it is taught in lectures by teachers. Huxley's book is more advanced than the other two but devotes less attention to the Health Question. McKendrick's book is a good elementary one, with excellent diagrams. I have further sent to Lady Dufferin *Tyetmeier's Domestic Economy* used by girls in Training Colleges and indeed the one most universally used. It is very good but of course every thing is so different in India that though it is a model publication, scarcely a page of it is applicable to India.

Farther, Prof. Gladstone of the London School Board recommends for teachers:

1. *Personal care of Health* by E. A. Parkes.
2. *Food* by Bernays.