

other foreign bodies mentioned, but still, hundreds of people take into their stomach these articles and do not suffer from appendicitis. Grape seeds are swallowed by a great many people, orange pits are perhaps taken into the stomach without the knowledge of the person who is eating the orange; occasionally plum stones and date seeds will slip down the oesophagus by accident. A plum stone I should consider to be especially dangerous, not only on account of its liability to produce trouble in the neighborhood of the appendix, but on account of its sharp point it would be liable to produce perforation of the bowel.

There are perhaps few people on the globe who do not eat raisins, grapes or oranges. It would be interesting to know whether these fruits are consumed to a greater extent by one people than by another, and, if so, whether appendicitis is more common among those who eat these seeds than among the others. The danger does not appear to lie altogether in the ingestion of the larger seeds. I have here to-night, an appendix with a perforation at its tip. The impaction was produced by what appeared at first to be a faecal concretion, but, in the centre of this, were found several raspberry seeds. The seeds of such fruits as raspberries, blackberries and thimbleberries are hard, and are, as a rule, swallowed without being broken. They are liable to become collected in clusters of two or three together and, in this way, become the nucleus for a faecal concretion. They pass through the intestine without change. Indian corn also frequently passes through the intestine without change, even though broken during the process of canning. There is no doubt that sudden violence frequently precipitates an attack of appendicitis; such violence probably pushes the foreign body a little further into the lumen of the appendix. I have recently seen a case in which on two different occasions the attack followed coition. Perforation of the appendix from typhoid fever and the perforation of a tuberculous appendix is rare. Many cases are supposed to be brought on by some error of diet. It is difficult to explain this and I believe that it is generally a coincidence.

*Symptoms.*—The symptoms of the disease are very various; premonitory symptoms are present in a large number of cases. The patients feel that something is wrong and that they are annoyed

by an uncomfortable sensation in the right iliac region or somewhere in the abdomen. This sensation at times amounts to an actual pain and this pain is difficult to locate. It may be referred to the left side of the abdomen, to the epigastric region, to the ovarian region, to the region of the gall-bladder; it may be neuralgic in its character and it may be diagnosed as a neuralgia. The patient is perhaps told that he is over-worked and run down, and, as a consequence, suffers from this abdominal neuralgia. Such a diagnosis is, at its best, but a cloak for our ignorance as to the exact nature of the patient's ailment. The cause of the pain, to my mind, is not properly accounted for by many authors. I believe that the pain is, in many cases, due to the interference with the blood supply of the appendix by the impaction of a foreign body in its lumen, and that this pain is identical with the pain produced by the strangulation of the pedicle of an ovarian tumor. The pain may be localized in the neighborhood of the gall-bladder, and the physician may suppose that it is due to some collection of gall stones, or to the passage of a gall stone. It may be referred to the ovarian region and the physician may suppose that the patient is suffering from neuralgia or inflammation of the ovary. It may be referred to the renal region and the physician may suppose that the patient is suffering from stone in the kidney.

Pain is not, however, a necessary accompaniment of disease in the vermiform appendix. Cases are met with in which no symptoms are found to point to any change in that organ. Such patients may suffer from headache, from chills and fever, and the physician may suppose that their condition is due to malarial fever, and yet, they are really suffering from a septicæmia originating in disease of the appendix and head of the cæcum. Other patients may suffer from sudden attacks of pain accompanied by vomiting, without any particular rise of temperature or increase in the frequency of the pulse. These attacks are frequently supposed to be due to some error of diet and the resulting indigestion. Pus may form with very little to warn us of its presence. I have seen opened large abscesses originating in disease of the appendix in patients who have suffered little, if any, pain to indicate the disease in this neighborhood. When these