of ice and counter-irritation over the region of the stomach are of service. Further, remedies which exercise a soothing effect upon an irritable mucous membrane, such as bismuth or weak alkaline fluids, and along with these the use of a light milk diet, are usually sufficient to remove the symptoms.

*Chronic Gastric Catarrh* may result from the acute or may arise independently. It is not unfrequently connected with antecedent disease in other organs, such as the lungs, heart, liver, or kidneys, and it is specially common in persons addicted to alcoholic excess. In this form the texture of the stomach is more seriously affected than in the acute. It is permanently in a state of congestion, and its mucous membrane and muscular coat undergo thickening and other changes, which, besides markedly affecting the function of digestion, may lead to stricture of the pyloric orifice of the stomach and its results, to be subsequently referred to. The symptoms are those of dyspepsia in an aggravated form (see Dyspepsia), of which discomfort and pain after food, with distension and frequently vomit­ing, are the chief ; and the treatment must be conducted in reference to the causes giving rise to it. The careful regulation of the diet (see Dietetics), both as to the amount, the quality, and the inter­vals between meals, demands special attention. Of medicinal agents, bismuth, arsenic, nux vomica, and the mineral acids are all of acknowledged efficacy, as are also preparations of pepsin.

*Ulcer of the Stomach* (gastric ulcer, perforating ulcer) is of not unfrequent occurrence, and is a disease of much gravity. Its causes are probably not fully understood, yet the following points may be regarded as generally admitted :—(1) that the disease is twice as common in females as in males, and that it is found to affect domestic servants more frequently than any other class ; (2) that it occurs for the most part in early life, the period from twenty to thirty including the great majority of the cases ; (3) that it appears to be connected in many instances with, impairment of the circulation in the stomach and the formation of a clot in a small blood-vessel (thrombosis) ; (4) that such an occurrence may arise in connexion with an impoverished state of the blood (anæmia), which is actually the condition present in many of the cases, but that it may also arise from diseased blood-vessels, the result of long-con­tinued catarrh, or from the irritation and debilitating effects of hot or cold substances.

It is held that when any such obstruction takes place in a blood­vessel the nutrition of a limited area of the stomach is cut off, and the part is apt to undergo disintegration all the more readily from the unresisted action of the gastric juices upon it. Hence an ulcer is formed. This ulcer is usually of small size (1/4 to 1 inch in diameter), of round or oval form, and tends to advance, not superficially, but to penetrate through the coats of the stomach. Its most usual site is upon the posterior wall of the upper or lesser curvature of the stomach and near to the pyloric orifice. It may undergo a healing process at any stage, in which case it may leave but little trace of its existence ; while, on the other hand, it may in the course of cicatrizing produce such an amount of contraction as to lead to stricture of the pylorus. But, again, perforation may take place, which in most cases is quickly fatal, unless previously the stomach has become, as it may, adherent to another organ, by which the dangerous effects of this occurrence may be averted. Usually there is but one ulcer, but sometimes there are more.

The symptoms to which this disease gives rise are often exceed­ingly indefinite and obscure, and in some cases the diagnosis has been first made out by the sudden occurrence of a fatal perforation. Generally, however, there are certain evidences more or less distinct which tend to indicate the probable presence of a gastric ulcer. First among these is *pain,* which is in some measure present at all times, but is markedly increased after food. This pain is situated either in front, at the lower end of the sternum, or fully more commonly behind, about the middle of the back. Sometimes it is felt at one or both sides. It is often extremely severe, and is usually accompanied with much tenderness to touch, and also with a sense of oppression and inability to wear tight clothing. The pain is probably largely due to the active movements of the stomach set up by the presence of the food. Accompanying the pain there is frequently *vomiting,* either very soon after the food is swallowed or at a later period. This tends in some measure to relieve the pain and discomfort, and in many instances the patient rather encourages this act. Vomiting of blood (hæmatemesis) is a frequent symptom, and is most important diagnostically. It may show itself either to a slight extent, and in the form of a brown or coffee-like mixture, or as an enormous discharge of pure blood of dark colour and containing clots. The source of the blood is some vessel or vessels which the ulcerative process has ruptured. Blood is also found mixed with the discharges from the bowels, rendering them dark and tarry looking. The general condition of a patient with gastric ulcer is as a rule that of ill-health, showing pallor, more or less emaciation, and debility. The tongue presents a red irritable appearance, and there is usually constipation of the bowels.

The course of a case of gastric ulcer is very variable. In some instances it would appear to be acute, making rapid progress to a favourable or unfavourable termination. In most, however, the

disease is chronic, lasting for months or years ; and in those cases where the ulcers are multiple or of extensive size incomplete healing may take place and relapses of the symptoms occur from time to time. Ulcers are sometimes present and give rise to no marked symptoms ; and it has occurred to the writer to see more than one instance of this kind where fatal perforation suddenly took place, and where *post-mortem* examination revealed the existence of long­standing ulcers which could not possibly have been made out by any evidences furnished during life. While gastric ulcer is always to be regarded as a dangerous disease, its termination, in the great majority of cases, is in recovery. It frequently, however, leaves the stomach in a delicate condition, necessitating the utmost care as regards diet. Occasionally, though rarely, the disease proves fatal by sudden hæmorrhage but a fatal result is more frequently due to perforation and the extrusion of the contents of the stomach into the peritoneal cavity, in which case death usually occurs in from twelve to forty-eight hours, either from shock or from peri­tonitis. Should the stomach become adherent to another organ, and fatal perforation be thus prevented, there may remain as the result of this a permanent condition of dyspepsia, owing to inter­ference with the natural movements of the stomach during diges­tion ; while again stricture of the pylorus and consequent dilatation of the stomach is an occasional result of the cicatrization of an ulcer in its neighbourhood.

Of prime importance in the treatment of this disease is the careful adjustment of the diet, the conditions existing in the stomach obviously requiring that the food administered should be of as bland and soft a character as possible. Of all substances milk forms the most suitable aliment, and, while there may be instances in which it fails to agree, even when mixed w’ith lime water or previously boiled, these are comparatively few. The peptonized foods originally suggested by Sir Wm. Roberts of Manchester are frequently found of much service in this disease. Light soups as well as milk may sometimes be administered in this way with benefit. The quantity, the intervals between the times of ad­ministration, and the temperature, as well as the quantity, of the food demand careful attention. In severe cases, where the pre­sence of food in the stomach gives rise to much suffering, nourish­ment by the bowel may be given for a time with great advantage. Of medicinal remedies the most serviceable are large doses of bismuth, with which it may be necessary to conjoin small doses of opium or of hydrocyanic acid for the relief of pain. The careful administration of nitrate of silver has been recommended as a means of promoting the healing of the ulcers, but this end is pro­bably more readily accomplished by the remedies and especially by the method of diet already referred to, combined with rest. When hæmorrhage occurs it is relieved by ice and by such styptics as gallic acid, ergot of rye, lead, alum, &c., while in the dread event of perforation the only means of affording relief is opium.

*Cancer of the Stomach* is one of the most common forms of internal cancerous disease. It occurs for the most part in persons at or after middle life, and in both sexes equally. Hereditary tendency may not unfrequently be traced.

The most common varieties of cancer affecting the stomach are scirrhus, medullary, and colloid, and the parts affected are usually the inlet or outlet orifices ; but the morbid process may spread widely in the stomach wall. When in the neighbourhood of the pylorus a stricture is frequently produced as the disease advances. The cancerous growth usually commences in the submucous tissue, but as it progresses it tends to ulcerate through the mucous mem­brane, and in this process hæmorrhage and hæmatemesis may occur. Tho symptoms of this disease are in many instances so indefinite as to render the diagnosis for a long time conjectural. They are mostly those of dyspepsia, with more or less pain, dis­comfort, and vomiting, particularly after meals. The vomited matters are often of coffee-ground appearance, due to admixture w’ith blood, but copious hæmatemesis is less frequent than in cases of gastric ulcer. The patient loses flesh and strength and soon comes to acquire the cachectic aspect commonly associated with cancer. The diagnosis is rendered all the more certain when, as is frequently the case, a tumour can be detected on examination over the region of the stomach, but there are many instances where no such evidence is obtained and where the nature of the disease is left to be made out by the age of the patient and by the intract­able and progressive character of the symptoms. Cases of cancer of the stomach advance w’ith more or less rapidity to a fatal termination, which is usually quickest in tho medullary form. In most instances death takes place in from six to twelve months. The treatment can only be palliative, but much relief may often be afforded by a careful attention to diet, by the treatment appli­cable to dilatation of the stomach, and by the use of opium.

*Stricture of the Pylorus* may, as has been already indicated, result from the various morbid conditions affecting the stomach to which reference has been made, namely, catarrh, ulcer, and cancer. By whatever means produced, the effect is an obstruction to the trans­mission through the pyloric orifice into the intestines of the con­tents of the stomach, the occurrence of dilatation of the organ, with