occur, and they are associated with bronzing or pigmentation of the skin, a hæmorrhagic tendency, headache, tinnitus, vertigo, delirium, and involuntary discharges. 10. Cancer. — The cancer is secondary in fifty per cent. of the cases, to cancer of the stomach, rectum, etc. Sometimes there is a history of heredity. Cachexia occurs; rapid emaciation and impairment of health; anæmia and a hæmorrhagic tendency; jaundice in fifty per cent. of the cases; ascites in seventy-five per cent. of the cases; the liver enlarges rapidly, but irregularly; there is lancinating pain. 11. Hydatid Disease.—Results, usually, from close association with infected dogs. The health is undisturbed, unless pressure effects of the tumor derange it. The liver is the seat of a great, irregular, painless tumor, which may exhibit "hydatid fremitus" when percussed. In case of doubt, aspirate. The fluid is non-albuminous, and it contains "scolices."

## THE DIETARY IN INDIGESTION.

## BY J. MILNER FOTHERGILL, M.D., EDIN.

When I hear medical men denouncing a regulated dietary in indigestion, my surprise is excited. Is it a malady to be combated by drugs only? I do not think anyone will support that proposition. Medicinal agents are not without their value; but the medicinal treatment of indigestion is surely but ancillary to the dietetic management. That a regulated dietary is too often a restricted dietary—so restricted indeed that the patient is practically half-starved—may be admitted. But need a regulated dietary necessarily be a very restricted one? I opine not; if the matter of the dietary of the dyspeptic be given a little more attention.

And for this it is well to keep the physiology of indigestion in mind. Digestion is solution by hydration so that the carbo-hydrates and albuminoids may pass through the wall of the alimentary canal; after which they are de-hydrated—else they would pass out by the kidney, giving glycosuria and peptonuria and leaving the body unfed. But a preliminary to solution is disintegration. If mastication be not properly performed the "lumps" of food find their way into the stomach and offend it.

Pastry, pieces of hard potato, cheese, are notorious offenders. The solvent action of the gastric juice can exercise no disintegrating effect upon the substances, while they act as irritants and set up pain. A piece of meat comparatively unchewed is less objectionable because the gastric juice acting upon the connective tissue allows the muscular fibrillæ to fall asunder. But even with muscular fibre there is a wide difference. Pork and veal are hard meats, and not readily falling to pieces in the stomach under the action of the gastric juice are held, and rightly too, to be indigestible. On

the other hand a thin slice of well boiled ham, cut across the fibre is very digestible. So is the loose fibre of a sheep's head. This is the mechanical aspect of the digestibility of food. Hard stringy meat is very indigestible. So are ill-cooked vegetables, and especially the cruciferæ, so are hard boiled eggs.

Fish, and especially white fish, whose fibres very readily fall to pieces, are in repute with dyspeptics for obvious reasons. Fish which are fatty, are indigestible (because the fat resists the action of the gastric juice) as the flesh of the salmon, the mackerel and the herring. The short fibre of the whiting, "the chicken of the sea," makes this fish especially digestible. Then come the flat-fishes, the haddock and the cod. They all are best boiled, for if fried, care is requisite that the flesh be not soaked in fat—when it is highly indigestible. There are few more indigestible matters than a fried sole which has not been skillfully cooked. And the same holds good of birds. Chicken and game are digestible, while the duck and goose, greasy-fibred meats are as certainly indigestible.

Potatoes have an evil reputation, but that again is largely a matter of cooking. A potato which is imperfectly cooked has a hard centre. A "stone" an Irishman calls it—and if palpable pieces of such hard indigestible matter be swallowed gastric distress is the intelligible result. But if the potato be well cooked and put through a sieve it ceases to be indigestible from "the mechanical point of view." It is the question of disintegration which militates against vegetables, and uncooked fruit. Pieces of hard apples are notoriously indigestible; while a baked apple will sit lightly on the most irritable stomach. The flesh of the grape is in great repute in all conditions of gastric irritability and debility whether primary or secondary to some general sickness.

Fat is an offence to a susceptible stomach, even as liquid fat floating about in it; but still more as lumps of fat upon which the stomach can exercise no solvent influence. Hence many persons, children and adults, reject sweet pieces of fat, and (after the meal) take some fishy oil. As the digestion of fat does not commence till the food has left the stomach, it is not well to give fat till its "time draws nigh." Thin stale bread with butter rubbed well in and doubled is much more digestible than the same bread cut thick with a stout layer of butter plastered over it.

Pastry, when fat and flour are well rubbed together, form a most indigestible compound resisting all disintegration except mastication. Suet puddings and dumplings also are indigestible.

On the other hand milk puddings, especially if made without an egg, are in repute, and not without reason for dyspeptics. They are light and sit easily on the stomach, the farinaceous matter being readily disintegrated, and what escapes disin-