strong isolated grey or white hairs appearing is a bad sign ; as a rule the last areas to become bald are the first to show a regrowth of hair. Sometimes the new hair when grown to a certain length will again be shed and this on more than one occasion, but yet the ultimate result may be quite good.

Those cases of alopecia, the result of which is complete destruction of the hair follicles, giving rise to a superficial or deep scar, are of course more or less hopeless, as regards the regrowth of hair on the diseased areas. Much may, however, often be done to prevent the affection spreading and the areas of baldness becoming larger. This applies not only to folliculitis decalvans, but also to lupus erythematosus when it affects the scalp, as in these cases the alopecia is generally permanent. I have, however, a case in a woman of about 40, who has been under me for some twelve years, with considerable areas of lupus erythematosus on the face and scalp, in whom recently hair has regrown on several of the bald areas.

INTESTINAL INDIGESTION OF CHILDREN.

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THE present day in medicine is distinguished by the increasing number of clinics, both public and charitable, which proffer medical advice to mothers about their infants and older children. Whilst, no doubt, benefits have arisen from the development of this system, there has been a consequent decrease in the opportunities afforded to the general practitioner of increasing his knowledge and gaining experience in the diagnosis and treatment of many of the common ailments of children.

One of these ailments, often not recognized, and if so recognized inadequately understood and treated, is the case of intestinal indigestion.

Medical teaching in the schools and in many textbooks tends to lead our thoughts in such a direction that the stomach is considered to be the main, and almost the only, focus of digestion, and therefore the only site of indigestion.

The large amount of work done on ulceration of the stomach and duodenum and its treatment in the last few years is largely responsible for this attitude. We must recognize, however, that it is often that which has left the stomach which is the cause of dyspepsia in the intestine.

The intestine in the child, smaller in circumference, much less in length and more vigorously active in peristalsis, plays a large part in nutrition when performing its functions normally. The digestion and absorption of fats, the final determining of proteins into their absorbable constituents, the hydrolysis of sugars and starches, often in bulk and ill-prepared for digestion, is a big task to be carried out. Mixed with the usable food materials is a varying amount of indigestible matter which must at the same time be separated or passed on for excretion.

The indigestible food materials which pass through the bowel consist chiefly of :—

- (1) Cellulose pulp from vegetables and fruits, coarse vegetables.
- (2) The skins of many fruits and vegetables, such as plums, apples, currants, sultanas, peas and beans.

- (3) Partly cooked starches in cereals and masses of unmasticated potato.
- (4) Pips and seeds of various fruits and vegetables.
- (5) Muscle fibres when overcooked or of a coarse nature.
- (6) Hard curds from precipitated milk proteins.
- (7) Fats, largely in the form of insoluble soaps.
- (8) Certain parasites infecting the bowel, e.g., lamblia, also cause spasm and hurry with indigestion and colic.

This list is a long one, but it must be remembered that many children tend to bolt their food, especially if there is dental defect. The presence of any hard mass in the intestine causes an increased secretion of mucus, irregular peristalsis and local spasm of the gut, which may develop sufficient tone to produce pain or discomfort, usually referred to the region of the umbilicus and, if severe enough, causing actual colic.

The presence also of irritating matter will at times produce hurried and increased movements of the bowel below the level of the mass, with consequent diarrhoea or reverse peristalsis with vomiting. At times, also, we find the stomach paralysed and refusing to empty itself for some time, until it does so by ejecting its contents by vomiting, the pylorus being in spasm.

What are the symptoms of this type of indigestion ?

Attacks of abdominal pain varying from the vaguest discomfort to real colic, associated usually with constipation, but at times with diarrhoea ; vomiting, if it occurs, only gives partial relief. The attacks may appear infrequently or return at intervals of a few days, no real relief being obtained in the intervening periods. The appetite is poor, the child often faddy and nervous, irritable or even ill-tempered. Sleep, when obtained, is heavy but erratic. In appearance the complexion is often sallow or muddy, the eyes heavy and sunken with dark lines beneath them. The tongue furred, the breath offensive, the skin dry and unhealthy looking. There is at times slight fever. Dental defects are often present, and the tonsils frequently enlarged and unhealthy. The abdomen is prominent, doughy in consistence and the liver usually enlarged and tender. Occasionally, if the nutrition is poor, the intestine may be seen outlined on the abdominal wall and the stomach distended. There is defect in height, in weight and general nutrition. During a more severe attack, if colic is present the child prefers to lie on the side or on the face with the knees drawn up. Lymphatic glands are found enlarged in the neck and at times in the groins. The urine is frequently concentrated, contains indican in large amount and oxalate crystals in excess.

The confirmatory evidence of this type of dyspepsia is found in the stools, competent examination of which is of the greatest importance. Personal examination of the macroscopic appearances of the stool often gives a clue to the diagnosis. We may recognize two types :—

(1) The constipated type. Firm, dry and offensive, covered in inspissated mucus ; it shows when broken up the presence of any cellulose masses, skins and pips.

(2) The loose or diarrhoeic stool. Lumpy, offensive, with flakes of mucus, vegetable residues and cellulose masses.

The first type is usually alkaline while the latter may be acid in reaction. Microscopically an excess of fatty acid crystals, undigested starch grains, and, if much meat has been given, muscle fibres, are present ; oxalate and phosphate crystals may also be in excess.

If parasites are present the usual type is the *Giardia* or *Lambliia Intestinalis*, and at times round or thread worms or their ova. The bacterial content varies. In some there is a definite excess of streptococci, or on the other hand these organisms may be scanty or only of faecal type. In others there is a definite deficiency in the number of *B. coli* developing in culture.

There is usually a definite relation between the number of colonies of streptococci and the health of the appendix and the tonsils. If there is naso- or bucco-pharyngeal sepsis, almost certainly in these cases will there be excess of streptococci.

In the early stages a gradual decrease in appetite occurs, and this is associated with lack of gain in weight and lack of resistance to infections.

The constant irritation of the bowel leads to a permanent excess in mucus secretion, and bacteria are thereby enabled to enter the tissue spaces of the submucous coat of the intestines and so the lymphatic stream. In the constipated cases the giving of "purgés," especially the evil weekly dose of senna or syrup of figs, will produce the same results by irritating the mucous membrane. Treatment of these cases must be carried out with care and should be organized with particular regard to the ends in view.

A complete examination of the stool and urine must be carried out.

Areas of focal sepsis watched, naso-pharynx and teeth attended to. Septic tonsils removed and accessory nasal sinuses examined. A barium meal will in certain cases demonstrate the presence of an irritable or definitely diseased appendix. In many cases we find ileal hurry followed by stasis in the cæcum and ascending colon, and that persistent fine barium clouding due to excess mucus secretion. Areas of spasm may show in the colon, and there may be a degree of reverse peristalsis with delay in emptying. The presence of an excess of mucus and of pathogenic bacteria in the stool indicates the need of rest in bed with local irrigation of the colon. These irrigations are best carried out with normal saline in small amounts and at low pressure.

Diet is of the greatest importance, especially in the early stages.

Non-residue, non-irritating, and non-fatty except for butter, cream, and a little bacon or ham fat. Starches must be extremely well cooked. Meat and fish carefully selected and in small quantity. Fruit juices and purees of the softer vegetables are carefully employed. All coarse vegetable matter and fried foods are excluded.

Laxatives, when essential, may be combined with bile salts or given in a mixture with small doses of tinct. rhei comp. and sodii bicarb. The most suitable are cascara, aloin and magnesia. Bile salts have a valuable physiological action and may be prescribed as a tablet or capsule, or combined with a very small dose of an aperient. Liquid paraffin is most unsuitable in these cases and should only be used as an emulsion with the greatest care, if at all.

Treatment having been commenced, we must ensure that the patient is not irritated by too much personal attention or worrying parents. Time is essential, and in many cases twelve months elapses before much improvement is noted. When treatment is well in hand a period of convalescence is of great value, provided the correct diet can be obtained. We must remember that a short lapse from the necessarily rigid rules may produce a prolonged relapse.

In these cases drugs without careful investigation, diet and hygiene, are of little value.