2. As regards psychological treatment, this will follow the usual lines of child guidance. Direct treatment aimed at removal of the symptom, by suggestion or other means, is, in my opinion, desirable in many cases, as it eases the situation considerably for both parent and child, and further treatment can be carried on for the neurosis as a whole. This will generally be in the nature of play therapy, depending on the technique employed. In adolescents, vocational guidance is usually necessary, as well as readjustment of their attitude to their problems. It must be pointed out, however, that prolonged treatment is not required in all cases. For many of them the symptom can be cured in two or three interviews or by simple environmental readjustment.

3. Very good results can be obtained in an institution provided it is of the right type. A residential open-air school has cured some of the cases first seen at the child guidance clinic. Others are cured at hostels for evacuated children. Everything, however, depends on the good relation between staff and children. At the school mentioned above remedial exercises to strengthen the abdominal and pelvic muscles were considered useful.

4. If simple measures fail a period of observation in hospital may be advisable, both to eliminate organic disorder and because it may effect a salutary break, and show the child and the parent that the habit can stop (just as asthmatic, epileptic, and other attacks often disappear while the child is in hospital).

Summary

An inquiry is made into the investigation and treatment of encopresis in children based on cases treated at the Birmingham Child Guidance Clinic over the past seven years.

No definite organic condition is found, and the cause is held to be psychogenic, the symptom being a regressive one.

Examples of cases and a summary of various lines of treatment are given.

My thanks are due to Miss A. McClure, Miss T. Alcock, and Dr.-S. Isaacs for their observations and suggestions.

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MACROCYTIC ANAEMIA FOLLOWING GASTRO-ENTEROSTOMY

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The following two cases seem to be of some clinical interest. Both men developed a macrocytic anaemia after gastro-enterostomy. The first had had an operation for duodenal ulcer eleven years ago, and now shows a hyperchromic macrocytic anaemia which coexists with the hyperacidity of the gastric juice. The second patient developed a severe hyperchromic anaemia with some features of pernicious anaemia after a gastro-enterostomy performed twenty-eight years ago. He recovered without incident after liver therapy. Owing to the long time since the operation it is impossible to state definitely in this latter case if the present anaemia arose in connexion with the previous operation or if it is a separate entity.

Case Reports

Case 1.—A miner aged 52. Eleven years ago he was operated on for duodenal ulcer, a posterior gastro-enterostomy being done. The fractional test meal before the operation showed hyperacidity. Since then he has had little trouble, only occasionally having slight attacks of pain; lately, however, the pain has been worse, and is accompanied by vomiting. On examination pallor of the skin, a slightly enlarged spleen, and tenderness in the epigastrium were found. A radiograph revealed a normally functioning gastro-enterostomy with some ulcer deformity in the duodenum; there was no ulcer crater. Fractional test meal: fasting juice volume 40 c.cm.

	Fasting	$\frac{1}{2}$	1	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3 hrs.
Free HCl	35	10	40	45	35	25	25 N/10 NaOH
Total acidity	45	25	55	55	55	45	45 as % of HCl

Blood examination showed: red cells, 1,630,000 per c.mm.; haemoglobin, 40%; colour index, 1.25; macrocytosis; white cells, 10,000 per c.mm.—polymorphs 69%, eosinophils 4%, basophils 1%, lymphocytes 14%, monocytes 12%. Sternal puncture showed the bone marrow to be normal. Liver (pernaemon) was given with good result.

Case 2.—A railway constable aged 62 complained of weakness and breathlessness on exertion. In 1912 a posterior gastro-enterostomy was performed for duodenal ulcer. Examination showed pallor of the skin, slight glossitis, sluggish knee- and ankle-jerks, but no enlargement of the spleen and liver. The fractional test meal showed no free HCl, the total acidity not exceeding 10; the fasting juice volume was 50 c.cm. Blood examination: red cells, 1,500,000 per c.mm.; haemoglobin, 55%; colour index, 1.8; macrocytosis; white cells, 3,000 per c.mm.—polymorphs 49%, eosinophils 6%, lymphocytes 42%, monocytes 3%. Normoblasts 7 per one hundred white cells; reticulocytes 2 per thousand. The fragility of the red corpuscles against hypotonic NaCl. solution was normal—0.36 to 0.46%. Sternal puncture revealed an excessive number of large erythroblasts. Liver (pernaemon) was given, and three weeks later examination of the blood showed a great improvement.

Commentary

The development of a hypochromic anaemia following simple gastro-enterostomy for gastric ulcer has been noted by many authors. This type of anaemia was reported by Witts (1930) in four cases, by Cosin and Hurst (1930) in one case, by Davies (1931) in five women and one man, by Lublin (1936) in 23 cases, by Meulengracht (1932) in one case, and by Hartfall (1934) in six women.

There are also much rarer reports of hyperchromic anaemia, sometimes called "megalocytic" anaemia, developing after gastro-enterostomy. Davidson (1928) described an Addisonian anaemia developing twenty months after gastro-enterostomy; Conybeare reported such a case in 1922; Hurst (1934) collected seven cases; Lublin mentioned this type of anaemia in one case two years after operation; and Fairley and Kilner (1931) reported one case of megalocytic anaemia following gastro-jejuno-colic fistula. Lastly, Salus (1932) reported two cases of subacute combined degeneration of the cord, without anaemia, fifteen years after gastro-jejuno-colic fistula.

The period in which the cases developed anaemia varies considerably—from twenty months to twenty-eight years after the operation. For the most part the anaemia occurred in women. Vaughan (1932) and others have stated that the anaemia may coexist with hyperacidity as in Case 1 above. They found normal acidity or hyperacidity in a certain proportion of cases after gastric operation even if severe anaemia was present.

The diagnosis of pernicious anaemia in the above cases is based on the blood picture (megalocytosis, colour index,

and diameter of red corpuscles), on the common physical signs of pernicious anaemia, and on the good results of liver therapy. Nevertheless not all these cases have the convincing features of true pernicious anaemia, and it would be preferable to speak of macrocytic anaemia. This condition may be due to two causes: first, it may be a lack of intrinsic factor as found in a typical case of pernicious anaemia; secondly, it may be that owing to artificial interference with the flow of the intestinal contents the extrinsic and the intrinsic factor are unable to unite and be absorbed in the normal manner.

Our thanks are due to the late Dr. Alexander Goodall for his permission to record these cases.

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Medical Memoranda

A Case of X-ray Dermatitis

We think the following case should be given wide publicity to avoid a repetition of the catastrophes of the early days of radiology. Since the outbreak of war many new x-ray machines have been installed and operated by untrained or inexperienced persons who are ignorant of the dangers to which they are exposed. There is also an increasing tendency for orthopaedic surgeons to reduce fractures under screen control, either operating the apparatus themselves or permitting some untrained member of the theatre staff to do so. The case quoted shows that such

proximal phalanges. This progressed to blistering, followed by desquamation and loss of the nails. Healing took place in three or four months, but several sets of nails developed only partially before a permanent set resulted.

In March, 1941, the left fourth digit became reddened and oedematous, and in June an ulcer developed. On examination there was marked oedema of the finger. It showed general reddening and there was an ulcer near the base of the nail on the ulnar side. The ulcer was about the size of a sixpence and

Photograph of x-ray dermatitis. Taken by ultra-violet light.

proceedings are not without risk and may be followed by serious, even disastrous, consequences. The proper method of screen examination as practised by radiologists entails a minimal exposure of the hands, and there is no risk to the operator. The enormous number of screen examinations performed daily by radiologists all over the country for many years without untoward result is conclusive proof of the safety of the proper method.

CASE REPORT

A doctor aged 26 recently consulted us about treatment for x-ray dermatitis which he had contracted over a year ago at a hospital in another district. In April, 1940, he began reducing fractures under screen control, averaging one daily. Soreness gradually developed in the fingers of the left hand and by June, 1940, there was a well-developed erythema affecting the dorsal surfaces of all four fingers as far down as the middle of the

is continuing to spread. Constant severe pain was present, radiating up the ulnar nerve and requiring drugs to produce sleep. The skin of the other fingers was thin, dry, and delicate, with many small reddish-brown subcutaneous areas. The nails were normally formed, but thin and brittle. The left thumb and right hand appeared normal.

Photographs were taken by artificial light, ultra-violet light, and infra-red light by Mr. C. H. Edlin of Nottingham, to whom our thanks are due. The ulcer is clearly seen and the subcutaneous spots are particularly well shown on the ultra-violet photograph, appearing as black spots (see Fig.). We were rather surprised that the infra-red photograph gave much less information than the other two.

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