Although an "open" fracture of the tibia, it had been fixed with a steel band and silver wire, with the inevitable result that osteomyelitis was established, and profuse discharge persisted long after a second operation for the removal of these foreign bodies. The limb had originally been fixed in plaster, more or less after the fashion of Böhler, but secondary haemorrhage had necessitated a hurried return to the theatre, where the plaster had been removed; the patient was then returned to the ward in a Thomas splint, with less complete control of the fragments. Some weeks later another surgeon operated in the presence of (?laudable) pus, hoping to fix the shaft by an intramedullary peg; this failed to help. Later on, with a large granulating wound and a discharging sinus, the man was readmitted for a severe attack of erysipelas, ran a high temperature, and became very ill. In short, *after eighteen months he has non-union of the tibia*, the opposed fragments being now cone-shaped, separated by over a centimetre, and held rigidly apart by the unaffected fibula; pus is still discharging from a sinus, and naturally he has not yet borne weight on the injured limb. The knee-joint has been immobile for one and a half years. The prognosis is none too good, for if we reject the idea of immediate amputation, he is faced with a long "sentence" while sepsis subsides before any further operation could be safely undertaken to square off the conical "stumps" and adjust the length of the fibula to that of the shortened tibia. If there is no "flare-up" there would still be a further period of prolonged immobilization while delayed union is awaited. Finally, the limb would have to be trained up to weight-bearing—in all, a matter of about a year or two from now—and then he would have a limb markedly impaired by shortening, and by a knee fixed in extension.

This unfortunate case contrasts extremely with the modern teaching and results of Lorenz Böhler, whereby the man would have returned to work in as many months as actually in years, and with *no* permanent disability.

Conclusion

It may well be emphasized that the introduction of internal splints, such as plates and screws, bands, etc., has been rendered almost entirely obsolete nowadays. With very few exceptions such foreign bodies are indicated only in fractures of the olecranon with separation, and in the view of some, in fractures of the patella. It has always been thought bad to "plate" open fractures.

Apart from contraindicated operations upon fractures, which are happily becoming more rare, an enormous amount of avoidable sick wastage still occurs from failure to effect accurate reduction before the limb is immobilized. Where there is overlapping and bad alignment of the bones it must be remembered that there is also kinking and distortion of the blood vessels and channels of venous and lymphatic return; and this is responsible for the marked oedema which persists so long, and for which an indefinite amount of massage has to be ordered. Faulty position, such as recurvation of the tibia, should be obvious, and there is really little excuse for allowing it to go uncorrected; but of course the "good old-fashioned" back splint and foot-piece, upon which most of us were brought up, encourages backward sagging, just as the Thomas splint is liable to allow this to happen in the case of a fracture of the middle third of the femur unless an upward—that is, anterior—pull is exerted from an axial bar above.

It is therefore important to emphasize Böhler's conclusion that it is not enough to *obtain* correct alignment; it must be secured by complete control until union is complete.

In the care of severe injuries, whether of bones or joints, it is still insufficiently realized that unnecessary sick wastage and lasting disabilities result from delayed or obsolete treatment. Though less dramatic in point of immediate danger, they may be considered as much a "surgical emergency" as the acute abdomen.

THE INCIDENCE OF MONILETHRIX

BY

J. GOODWIN TOMKINSON, M.D.

HONORARY CONSULTING DERMATOLOGIST, WESTERN INFIRMARY,
GLASGOW; DERMATOLOGIST, EDUCATION HEALTH SERVICE,
HEALTH DEPARTMENT OF GLASGOW; DERMATOLOGIST,
EDUCATION AUTHORITY, COUNTY OF
DUMBARTON

Typical monilethrix is a rare affection, but it is not improbable that cases presenting less diagnostic features may be more frequent than is generally believed, as the following familial group might suggest.

On June 28th, 1935, I saw three patients affected with this disease belonging to a family of ten persons. Subsequently I saw five other members of the family. Of the total number seen, four males and four females—two of the latter were twins—seven had the disease; the unaffected member was the mother. The condition had evidently originated paternally. There was a very suggestive history on the male side of the family—the paternal grandfather, the paternal grand-uncle, and two paternal uncles had or have scanty hair or are bald. This family is not related to the two families previously reported by me in the *Journal* (December 3rd, 1932, p. 1009; and March 16th, 1935, p. 526). The grandfather, a tailor, appears to have been born in Argyllshire. The father and one of his brothers are miners, while a second brother is a plasterer; they were born in Glasgow. The following is a brief history of the affected members.

History of Affected Persons

1. Father, aged 57, miner; born in Glasgow. At 17 years of age his hair began to fall. The hairs microscopically examined show very rare swellings.

2. Daughter, aged 20. Her hair up to about the age of 12 years was very thin at the back. In front and at the sides "it stood out; it would not lie down." Oil was rubbed into the scalp and hair growth improved. Fusiform nodes are present. Twisting of the hair at the atrophic portions is noticed microscopically, doubtless causing the spiral appearance detected in some hairs; brushing might have contributed to this phenomenon. Fracture is observed not only inter-nodally but in some instances of the node itself. The latter is a definitely atypical feature. Short nodes with abrupt borders are also seen—two in close juxtaposition with slightly diminished pigmentation and corresponding increase in inter-nodal area were observed. Marked longitudinal splitting of the hair is noticed in various parts of the shaft which I cannot recall ever having seen in hairs of either of the groups previously reported. Externally the eyebrows are thin. Many freckles are present.

3. Son, aged 18. In this patient the nodes are short, and in some of them diminution of pigment is detected.

4. Son, aged 13. The nodes are short and the spindles not well defined.

5. Son, aged 10. The nodes are of smaller diameter.

6. Daughter, aged 5, a twin. Her hair is very fine; it is short at the back and in a restricted frontal region. It tends "not to lie down." There are many short nodes; longer ones are also seen but not well defined. Spiral hairs are very frequent, and longitudinal fissuring of the shaft is present. The eyebrows are thin externally. A very few lichen pilaris lesions are present in the suboccipital region. There is naevus araneus of the right side of the nose.

7. Daughter, aged 5, a twin. Her hair is fine; posteriorly short, anteriorly slightly so. It tends "not to lie down." Fusiform nodes and also short nodes are present. Her eyebrows are thin externally. There are verrucae planae on the right half of the forehead.

Some Modifications and Variations

It will be seen that in this group there is definite variation in the degree of development of the nodes. In the father's case they are more of the nature of very rare

swellings of the shaft. Again, in addition to fusiform nodes, some of which are relatively thin, short nodes occur. A feature, definitely atypical, hitherto unobserved by me in monilethrix, is occasional rupture at the node. An equally abnormal feature is the longitudinal fissuring of the shaft, involving the nodes, also the partial fracture of the hair—that is, not involving the whole diameter.

Another modification, noticed in an adult and to a less degree in a child of 5 years, is the presence of spiral hairs, possibly due to thinning of the shaft and vigorous brushing. It will be recalled that in three females the eyebrows are thin externally. One of these, an adult, states that up to the age of about 12 years her hair "stood out, would not lie down" (the same condition exists in the twins), and at that age oil was rubbed in and growth of the hair improved. This improvement was due in all probability to increased sebaceous gland activity, an accompaniment of the onset of puberty, a phase to which I have alluded in both previous contributions as possibly favourably affecting hair growth. The occasional fracture of the nodes and longitudinal splitting of the hair shaft naturally involve a consideration of the possible coexistence of trichorrhexis nodosa and fragilitas crinium. I regard the former feature as an exception due to extreme brittleness of hair which the occasional longitudinal splitting of the shaft supports. An arresting feature was the absence from the scalp, except in one patient, of lichen pilaris.

In conclusion, this group of cases, although placed in the category of monilethrix, certainly includes more than one unusual feature, and would suggest, as previously advanced, the possible existence of similar groups exhibiting more or less variation from type and consequently more liable to escape detection.

Clinical Memoranda

Ergometrine: The Possibility of Idiosyncrasy

Since ergometrine was made available to the medical profession in April, 1935, this new drug has been used very extensively in obstetrical practice, and in many large maternity hospitals it is given routinely to all patients after labour. Thus far no unfavourable side effects have been recorded; indeed, it is one of the characteristics of the alkaloid that the useful clinical effect is elicited by doses far short of the toxic dose. The drug has also been given to seriously shocked patients without any harmful effect on the general condition (*British Medical Journal*, October 24th, 1936, p. 799). Recently, however, three reports have come to hand—two from one practitioner—which suggest that on rare occasions a patient may show an unusual reaction to the drug.

In one case, following an abortion at the ninth week of gestation, 0.5 mg. of ergometrine was injected intramuscularly. Within five minutes the patient complained of a pressure in the epigastrium, became nauseated, and vomited violently. A severe headache quickly developed, and a sensation of pressure spread over the body. The patient felt too weak to move, and for a time she had a sensation that she was going to die. After twenty minutes the symptoms subsided, but the feeling of weakness persisted for some hours.

The second case—also one of abortion—was complicated by severe bleeding which necessitated intrauterine manipulation. In this case, following injection of 0.5 mg. of the drug, the patient experienced a sense of constriction across the chest, together with difficulty in breathing: there was a sensation of impending death. The symptoms disappeared after about thirty minutes.

The third case was again one of abortion. In this instance ergometrine was given orally. Symptoms of faintness developed, but were not of great severity, although for a time the patient's face was grey and covered with sweat.

These records raise the question of the possibility of a rare idiosyncrasy to ergometrine. On the evidence available a decision on this matter is scarcely possible. It may be significant that in each of the three cases in which administration of the drug was associated with unfavourable symptoms the patient was suffering from severe bleeding accompanying the abortion of an early pregnancy. In at least one of the cases there was also some intrauterine manipulation, which may have been responsible for symptoms of shock, and which may have determined the unusual effect of the drug. Thus far there is no record of harmful symptoms following the administration of ergometrine after labour, which is the main use of the drug. Occasionally a patient may complain of severe "after-pains," but these are not of serious consequence, and in such cases the drug, if repeated, should be reduced in dose. In any event, the oral dose for repeated administration should never exceed 0.5 mg.

It is important that with the introduction of a new drug full information should be gathered regarding its action in different circumstances. It is the object of this note to suggest that should other examples of unusual response to ergometrine occur they be duly recorded.

British Post-Graduate Medical School, W. CHASSAR MOIR.

A Case of Mastoiditis

Unusual cases of mastoiditis are not uncommon. Perhaps the following note may be of interest to some readers.

A man aged 48, while on holiday, developed an acute suppurative otitis media on the right side, for which a paracentesis was done. When I saw him on July 15th his tympanic membrane was injected—bulging slightly posteriorly and with only a slight muco-purulent discharge through the paracentesis incision. There was no mastoid tenderness, the temperature was normal, but the patient did not feel well, and the pulse rate was increased. Owing to the scantiness of the discharge, the slight bulging of the drum, and no improvement in the patient's condition, the drum was re-incised with the object of promoting freer drainage. The patient's condition improved considerably, but still, after six weeks from the time of onset, in spite of treatment, the drum did not return to normal; it remained injected, particularly in Shrapnell's membrane and the posterior part of the membrana tensa. The patient complained that "he did not feel right, as if there were a fuzziness in his head, and inability to concentrate." There was no mastoid tenderness, swelling, or oedema, the temperature was normal, and the pulse rate 84.

At operation was found an infected tract leading from the mastoid antrum to a small abscess cavity near the tip of the mastoid process; the pus was well formed and under pressure, and separated from the sinus only by a thin sheath of bone.

One is reminded of the old saying that the drum is the window to the ear, and that failure of inflammation to subside in five weeks after an acute infection is significant. Again, the pulse rate is often more important than the temperature. Also the patient's story should not be lost sight of.

We all know that infection selects sometimes the attic in preference to the atrium, perhaps because of its greater amount of connective tissue, or its folds of mucous membrane make a suitable nidus, from which infection readily passes back to the antrum, without causing such a distorted picture on otoscopic examination as when the atrium is primarily involved.

Southampton.

ALEX. RUSSELL.