The term "decerebrate rigidity," though convenient, is apt to suggest that the lesion producing it must be situated about the mid-brain—that the rigidity in man is the outcome of a pathological process which is the counterpart of an actual section at the colliculi in animals. These cases of mine demonstrate clearly that the level is a physiological rather than an anatomical one, and I have refrained from applying the term "decerebrate" to the rigidities in order that this significance should not be obscured.

Why generalized rigidities should make their appearance in one case and not in another of very similar gross pathology is a delicate question. It is probable that the syndrome in man depends on a very fine circulatory balance, on a relative anoxaemia sufficient to suppress cortical control but not great enough to render inactive the causal mechanism in mid- and hind-brains. Generalized rigidity may thus never have an opportunity of arising in one case; it may be but a phase in another (as Kinnier Wilson points out); whilst in a third, where the balance is maintained for a period, the rigidities may border on chronicity.

REFERENCES.

¹ S. A. K. Wilson, On Decerebrate Rigidity in Man and the Occurrence of Tonic Fits, *Brain*, 1920, 43, 20. ² Kroenlein, Ueber die Trepanation bei Blutungen aus der art. mening. media, usw., *Deut. Zeit. f. Chir.*, 1886, 23, 209. ³ P. Wiesmann, Ueber die modernen Indicationen z. Trepanation, usw., *Deut. Zeit. f. Chir.*, 1885, 21, 1. ⁴ H. Duret, *Traumatismes crânio-cérébraux*, Paris, 1920.

METATARSUS VARUS.

BY

A. S. BLUNDELL BANKART, M.C.CANTAB.,
F.R.C.S.ENG.,

ORTHOPAEDIC SURGEON, MIDDLESEX HOSPITAL; SURGEON, ROYAL
NATIONAL ORTHOPAEDIC HOSPITAL AND HOSPITAL FOR
EPILEPSY AND PARALYSIS, MAIDA VALE.

METATARSUS VARUS is a deformity which has long been familiar clinically to orthopaedic surgeons, but it is not described even in textbooks of orthopaedic surgery, and its essential pathology has not yet, I think, been recognized.

Whitman,¹ it is true, makes passing reference to "metatarsus varus" as an incomplete form of clubfoot (congenital talipes equino-varus) or simple talipes varus, and the treatment recommended is the same as that for the varus part of congenital clubfoot.

But metatarsus varus belongs to quite a different category from clubfoot or talipes varus. It is not a contracture deformity at all. It is an anatomical deficiency deformity, and is due to congenital absence of the internal cuneiform bone. It should therefore be classed not with talipes or other congenital contractures, but with those conditions in which deformity is incidental to gross structural defect—for example, congenital absence or deficiency of the tibia, fibula, radius, ulnar, vertebrae, etc.

Clinically, the posterior part of the foot presents a normal appearance. There is no limitation of movement at the ankle or subastragaloid joints. There may even be some eversion (valgus) of the foot at the subastragaloid joint. The anterior part of the foot is sharply adducted at the tarso-metatarsal joint, but there is no inversion of the sole. The patient, therefore, stands with the sole of the foot flat on the ground, but while the posterior part of the foot is straight, the anterior part is directed inwards or forwards and inwards. The great toe is usually adducted more than the other toes (hallux varus). There is a sharp kink, which can be both seen and felt, in the inner border of the foot, just behind the base of the first metatarsal bone. The patient can walk, but his gait is awkward, and the deformity is unsightly. So far as I know, the condition is always bilateral.

It should be noted that the displacement of the anterior part of the foot is entirely abnormal—it is not even, as in talipes, an exaggeration of a normal displacement. Adduction without inversion is not a physiological movement of the foot.

Radiography shows the adduction of the anterior part of the foot, but it does not reveal the essential defect in young children, because the cuneiform bones are not ossified at the age at which these cases usually come under observation. I have not had the opportunity of examining a patient who has grown up with this deformity.

In six feet (of three patients) that I have examined at operation the internal cuneiform bone was absent and represented by a flat disc of fibro-cartilage between the base of the first metatarsal bone and the scaphoid. The tendon of the tibialis anticus divided into two distinct slips, one of which was inserted into the fibro-cartilage, and the other into the base of the first metatarsal. It was not possible at operation to make out the condition of the middle cuneiform bone. The first metatarsal was shorter than normal and strongly adducted. The scaphoid was normal. In one case the neck of the astragalus appeared to be unduly long, and the head was bent downwards.

Treatment.

From the nature of the deformity it is obvious that the treatment suitable for talipes varus or the varus part of talipes equino-varus is quite inappropriate for metatarsus varus, and the general experience of orthopaedic surgeons is that the results of such treatment are unsatisfactory. It is true that a considerable amount of apparent correction can be brought about by manipulation and fixing the foot in plaster. But the correction thus obtained is not permanent, and the deformity always relapses more or less completely.

Anatomically the inner border of the foot is too short, owing to absence of the internal cuneiform bone, while the outer border is relatively too long. Permanent correction, therefore, can only be obtained either by lengthening the inner border or by shortening the outer. Two procedures, therefore, suggest themselves: (1) Separation of the first metatarsal and scaphoid bones, and the insertion of a graft to keep them apart; and (2) excision of bone—for example, the cuboid—from the outer border of the foot.

I have tried both these operations with, in each case, immediate correction of the deformity, but they are too recent to speak yet of the ultimate results. Theoretically, to replace the missing bone by a graft, and thus to restore the inner border of the foot to its normal length, would appear to be the ideal method of correcting the deformity. But I doubt very much whether this can be attained in practice. In the first place, the results of bone grafting, excellent as they are in very many conditions, are notoriously uncertain in cases of congenital bone deficiency. In the second place, if a fixed graft is successfully inserted into the first metatarsal and the scaphoid, and perhaps also the astragalus, it is likely that the rigid foot produced will eventually prove to be a greater disability than the original deformity.

For these reasons I think that the better practice is to remove bone from the outer side of the foot—a practice, be it noted, that is absolutely contraindicated in cases of clubfoot in young children. By removal of the cuboid the outer border of the foot is shortened and the metatarsus is abducted and brought into line with the posterior part of the foot. This, so far as my observations go, gives the best correction of the deformity with the least disturbance of function.

REFERENCE.

¹ Whitman, *Orthopaedic Surgery*, 1919.

TWO CASES OF PERNICIOUS ANAEMIA
WITH INFECTIVE FOCI IN THE
ALIMENTARY TRACT.

BY

E. F. MAYNARD, M.D., AND S. D. STURTON, M.B.,
M.R.C.P., M.R.C.S.,
HONORARY PHYSICIAN, HOUSE PHYSICIAN,
ROYAL SUSSEX COUNTY HOSPITAL, BRIGHTON.

MUCH has been written on the etiology of pernicious anaemia, and the clinical evidence points to there being an invasion of some part of the alimentary tract by pathogenic organisms in a large percentage of cases. In the two following cases there appears to be very definite evidence of either past or present pathological changes in the alimentary tract.

CASE I.

The first case was that of A. B., aged 38, a trained nurse, who came under our care on April 8th, 1921. The history of the illness was that in July, 1920, she felt very "run down," and had to give up nursing. About a month later she noticed that