HALLUX VALGUS.

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“Excision of the joint cannot be too emphatically condemned as it is liable to end in a stiff joint, which results in a crippling walk.”—Robert Jones, *Orthopædic Surgery*, p. 629.

Genu valgum, whether due to some deforming condition near the knee joint or to some other cause, demands for its correction a cuneiform osteotomy of the shaft of the femur or tibia. No surgeon would have the temerity to excise the head of the femur, invading the sanctity of a joint which is essentially healthy and intact. The metatarso-phalangeal joint of the great toe in cases of hallux valgus is invariably similarly healthy; even in the most advanced and neglected cases the cartilage of the bones entering into the joint are little or not at all affected. The exostoses which aggravate so impressively the appearance of deformity lie outside the joint-capsule and can be removed, if considered hurtful, without invading the joint itself.

Rationale of Treatment.

From time to time series of cases treated by excision of the head of the first metatarsal are published, and it is claimed that there is marked improvement or even “cure” achieved by this destructive procedure. Statistics are quoted, but mere statistics in themselves rarely infuse that warm glow of conviction that hitches a surgeon’s star to the wagon of a surgical *ne plus ultra*.

However satisfied the patients may be by the amelioration of this crippling affection it is safe to say that they have not received the best possible result—not a “cure” in the fullest sense of the term. For by removal of the head of the metatarsal they have lost the most important of that tripod of supports on which depends the security of the tread of the foot. Removal of the head of the bone leaves a condition shown in Fig. 3 (tracing from a radiogram), the roughened end of a shortened bone no longer capped by articular cartilage, embedded in a mass of blood clot and the remains of the capsule. By careful management, by an element of good fortune, and by virtue of Nature’s remarkable capacity for remedying insults to the tissues inflicted by disease or by accident, the roughened end of the bone may eventually become smooth and a fairly efficient joint emerge, but the cartilaginous cap is never replaced, the bone is permanently shortened and there is grave risk of a hallux rigidus being left as a *pis aller*.

Compare with this the result of a cuneiform osteotomy as depicted in Figs. 1 and 2 (also tracings from an actual radiogram). The joint remains intact, the length of the metatarsal is only slightly shortened, healing takes place as in an ordinary fracture, and the pull of the extensor longus pollicis (P in Fig. 1) now tends to prevent recurrence by virtue of the altered alignment of the bone. In the untreated hallux valgus the toe forms an angle, open outwards, with the metatarsal; across this angle the tendon passes to its attachment at the base of the phalanx, effectually preventing correction of the deformity. When that angle has been reversed by an osteotomy the tendon just as effectually prevents relapse. It will be seen that mere tenotomy of the taut tendon not only does not suffice to remedy the deformity, but removes the most potent factor in the prevention of relapse.

In longstanding cases there is considerable shortening of the external lateral ligaments of the joint. If these are broken down forcibly, as an early measure during the operation, by strongly pulling the toe inwards, the latter will be made free to rest without strain in the new position designed for it.

FIG. 1.

A.P. view of case shown in Fig. 1 (reduced). (Tracing of radiogram).
P = line of Extensor Tongus Pollicis, shewing how the pull of the muscle now prevents relapse.

Shaded triangle indicates the portion of bone excised.

FIG. 2.

Lateral view of Osteotomy of the 1st metatarsal for Hallux Valgus. (Tracing of radiogram of case of Author).

FIG. 3.

Lateral view of Excision of head of 1st metatarsal for Hallux Valgus. (Tracing of radiogram of similar case).

Operation Recommended.

The operation itself is simple. The inflammation in the usual bursa over the inner and upper aspects of the joint having been brought to a state of quiescence by rest, etc., the anterior half of the foot is as scrupulously sterilised as for any other bone operation, and a longitudinal incision made along the supero-internal aspect of the metatarsal. This will be found to lead down to a bare surface of bone between the extensor and the flexor longus pollicis. The only vessel needing ligation is a digital artery. The bone is cleared and a wedge-shaped piece cut out from the shaft immediately behind the head of the bone, by chisel, a fine metatarsal saw, or by a small Albee's circular saw. Ideally, the cut should not completely sever the head from the shaft, but this is difficult to accomplish especially when the chisel is used. The toe is then forced inwards a little beyond the line of the inner border of the foot. A few catgut sutures (No. 1) through periosteum serve to keep the ends of the fractured bone in close apposition, a few silkworm gut sutures in the skin, a gauze dressing and the immediate application of a plaster of paris splint along the inner side of the foot, extending round the heel behind and projecting beyond the end of the great toe in front, held in position by a few turns of a cotton bandage, and the operation is complete.

During the course of the operation any aggressively exuberant osteophyte outgrowths that obtrude themselves can be easily chipped off, but it is not necessary to inflict more trauma in order to expose them, since they tend to disappear or to

become innocuous when undue pressure from the boot has been removed through correcting the alignment of the toe. The plaster of paris splint should be placed direct on to the skin without the interposition of any padding, as recommended by Böhler in his treatment of other fractures.

The rounded flap incision, advised by Sir Robert Jones, with the convexity forward is sometimes preferable, as it allows removal of the poorly nourished skin over the bursa, but I find a straight incision more generally applicable, passing straight through the bursa, the two halves of which can then be peeled off the bone and overlying skin. Usually no skin needs to be sacrificed; the thinned portion having its blood supply less interfered with by a straight incision than by one that fashions a long flap.

J. Stewart of Leeds and M. Brandes of Dortmund, impressed by the disastrous sequels that not infrequently follow removal of the head of the first metatarsal, have resected the base of the proximal phalanx with decidedly better results, since by this measure the tripod of the foot is left intact. But even though less destructive this operation still falls short of the ideal.

The causes of hallux valgus have not been touched upon, since they are well-known, nor is there any necessity to labour the after-treatment. It has been my chief endeavour to show that the operation of cuneiform osteotomy, so strongly advocated by the late Sir Robert Jones, is essentially sound in principle and gives the nearest possible approach to a *restitutio ad integrum*. On the other hand, the operation of excision of the head of the metatarsal bone violates surgical principles being crude in conception, ruthless and destructive in execution and leaving behind at the best a far from perfect result, at the worst a condition as disabling as that which the operation set out to remedy.

ON FITS AND FAINTS.*

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It is a frequent experience of medical practice to be called upon to explain "attacks" to which a patient has been subjected, and to indicate their nature and significance. Sometimes the "attack" has been personally observed; more frequently its character must be deduced by careful questioning. Whatever their features, such attacks invariably arouse great anxiety, and, it is, therefore, of paramount importance that we should have at least a general knowledge of the possibilities.

Two types will be excluded from this consideration—infantile convulsions and vertiginous attacks. The vertiginous attack has a fundamental character which at once indicates its nature, though the establishment of its cause may well demand very thorough analysis and investigation.

The manifestations to be considered fall into three main groups:—

- (1) Those arising primarily in some dysfunction of the nervous system—Fits.
- (2) Those dependent upon dysfunction of the circulatory system—Faints.
- (3) Hypoglycæmic attacks, etc.

*Based on Post-Graduate Lecture delivered at Ancoats Hospital, Manchester, on October 26th, 1933.