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EXPERIENCES WITH OPERATIVE TREATMENT OF INVETERATE CLUB-FOOT IN OLDER CHILDREN AND ADULTS[1])

Summary

Opinions have differed concerning the treatment of clubfoot in adults. In his comprehensive monograph on club-foot, Monberg (1931) arrives at the conclusion that if the patient is taken under treatment after the age of 20 years, the established abnormality will be so extensive and thorough that correction cannot be obtained by operation, and he advises amputation.

In 1929 Haberler recommended the mechanical redressement employed in the Lorenz Clinic, carried out gradually, and he reported the case of a male patient, aged 28, with a rather severe degree of pes equinovarus, in whom this treatment gave a good result. The result kept unchanged for half a year after the operation, but no subsequent reexamination was recorded.

By means of lantern slides the author demonstrated some cases which illustrated the development of the technique leading to the method he subsequently employed. With slight modifications this method has been used also in the clinic of Sophies Minde.

Through other lantern slides the author then demonstrated 3 cases that were operated after this method. They were all severe degrees of previously untreated club-foot, where the position and function of the foot after the operation had become very good.

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[1]) The paper will be published in extenso in a subsequent issue of Acta Orthopaed. Scand.

The results were better than those the author previously had seen demonstrated or published. Now the patients were all able to walk with ordinary factory-made shoes.

Method of Operation.

The operative method I have employed since the end of 1935, as illustrated by the last three cases here reported, is briefly outlined as follows:

Through a medial longitudinal incision—as dorsally as possible—the plantar aponeurosis, the short plantar muscles and the plantar ligements are divided, till Chopart's joint and the talocalcaneal joint are opened. The medial half of the insertion of the Achilles tendon is excised, in some cases. Blood vessels and nerves are spared carefully. Through a new longitudinal incision, extending up behind the internal malleolus, the long flexors of the toes and the tibiales posterior and anterior are lenghtened.

On closing the incision the skin will form a tight bridge and prevent the full effectivity of this operation. Therefore, a dorsal skin flap or bridge is pulled down for closure of the operating wound.

A plaster bandage is applied, with the foot in corrected position, A fenestra is cut in the plaster, through which the skin defect is repaired by grafting after the Thiersch method.

Four weeks later the Achilles tendon is lenghtened through a lateral longitudinal incision. In the usual way, the ligaments are divided unto the joint. The the heel is pulled down by means of Schede's apparatus.

In cases with pronounced talipes equinus contracture, of course, it is not practicable completely to correct the equinus position, owing to the changes in the talus in relation to the malleolar fork. Only in rare cases will the lack of correction exceed 10°.

4—5 weeks later, a wedge osteotomy is performed in front of, or in, Chopart's joint, according to the location of the apex of the convexity on the roentgenogram. Even in the most severe degrees of talipes in adults the base of the wedge needs not

exceed 1—1½ cm. Then a small horizontal wedge is made in, or below, Chopart's joint.

In these patients, I think, it is of advantage to make the wedge so that the result is an arthrodesis sub thalo, as this fixes the movements in the tarsal joints in the form of supination, and the pronation is minimal anyhow.

The osteotomy surfaces are united firmly by sutures in the bones as well as the capsules. Under this procedure the anterior part of the foot is twisted into pronation as required. Sometimes the peroneal muscles are shortened.

In case where this method has been followed, so far there has never been any necrosis.

As a rule the patient will have to stay in the hospital altogether from 3 to 3½ months. Night braces or club-foot shoes have not been required.

In all the cases where this method was employed it appears as if the results from the operation will be permanent. In the oldest case the observation period has been 4½ years.