A METHOD OF TREATING CURVES OF THE TIBIA IN HOSPITAL OUT-PATIENTS.

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MARKED degrees of rickety curves in the tibiae of children are of common occurrence in the out-patient departments of town hospitals. The treatment of the local condition is often unsatisfactory, owing to the attention that is required of the mother for a long period, to support the affected limbs. It has been found, if the cases be carefully watched, that after a time, improvement being very gradual, the appliances are often thrown aside as useless, and the child is permitted to run about at will. Osteotomy of the affected bones effects a speedy rectification of the deformity, but may be objected to by the parents from its requiring the child to become an in-patient; by the surgeon, as occupying a bed for a month or six weeks with what is virtually, from a Listerian point of view, a simple fracture. It occurred to me that both objections could be overcome by performing antiseptic osteotomy, and, after straightening the limb, fixing it in an immovable apparatus, and sending the patient home. This method having now been adopted with complete success in twelve instances of curved tibia, and with no bad symptoms in any case, a detailed account of the practice is given, in order that it may be tested by other surgeons. All the patients operated upon were young children; and in none did the age exceed five years.

The curves in the tibiae were mostly lateral, and in none was it necessary to remove a wedge of bone to bring the leg into a straight position. The limb, being rendered bloodless, is cleansed with carbolic lotion, and, the surgeon standing on the outer side, a small incision half an inch long is made, parallel to the inner edge of the tibia, reaching at one cut the concavity of the curve in the bone. The usual antiseptic precautions are carefully observed. The tibia is next cut with the chisel from within outwards, until the division is thought to be sufficient to allow the fracture to be completed with the hands. The fibula gives way, generally, at that point where pressure is exerted by the thumbs, as near as possible to the fracture of the tibia. A single silver suture is then introduced, to bring the edges of the skin together at the middle of the incision; the limb is brought into position, and an antiseptic dressing of carbolised gauze and salicylic wool applied. Three splints are next employed to maintain the position of the limb. These are composed of pasteboard, softened by immersion in water. The posterior splint extends from the middle of the popliteal space down the back of the leg to a point just beyond the heel; it is bent upwards along the sole of the foot to the toes, so forming a foot-piece. The breadth of the splint varies with the development of the limb; two inches and a quarter may be taken as an average. Two lateral splints of the same material, but narrower than that used for the posterior aspect of the limb, extend from a point opposite the head of the fibula to the foot-piece of the back splint. A thin layer of cotton-wool is used to cover the posterior splint alone. The splints thus applied are fixed by means of an ordinary roller; and over this three or four layers of a plaster-of-Paris bandage. When the plaster has become hard, and the effect of the chloroform is recovered from, the child is sent home, the mother being told to return in a week, or at once if feverishness or other abnormal symptoms arise. In the first half-dozen cases, the patients were seen daily, and the temperatures, pulses, and general conditions recorded for the first three days. Nothing worthy of note transpiring, a continuance of the practice was not deemed necessary. In a fortnight from the date of the operation, the plaster case is removed; the wound is then seen to be healed, and the suture is taken out. The splints used before, now quite hard, are reapplied, and fixed either with strapping or with a few turns of a plaster bandage. At the end of six weeks the apparatus is removed from the limbs. The following are brief notes of the first four cases operated upon, and which were shown at a meeting of the Midland Medical Society at the end of April last. They may be quoted as ordinary samples.

CASE I.—C. K., aged 4, had bilateral rickety curves of the tibiae.—March 11th. Antiseptic osteotomy of the right leg was performed. Three pasteboard splints were applied, and plaster-of-Paris bandages.—March 14th. The child seemed quite comfortable. There had been no rise of morning temperature since the operation. The other stated that the child had complained but little of pain.—March 25th. The bandages were removed. The wound was healed; the limb straight. The splints were reapplied, with one plaster bandage.—April 15th. The splints were removed altogether.

CASE II.—C. H., aged 2½, had bilateral rickety curves of the tibia.

—March 25th. Antiseptic osteotomy was done on the right leg. Three pasteboard splints and plaster-of-Paris were applied.—March 28th. The child was quite lively. It had taken food as usual since the operation. No higher temperature than 99° Fahr. was recorded.—April 8th. The bandages were removed. The wound was healed, and the limb straight.—May 6th. Splints were removed.

The above being the first cases, it was thought advisable only to osteotomise one leg at a time; the other limbs have been straightened subsequently. In the remainder, both limbs were rectified at the same time.

CASE III.—A. C., aged 3, had bilateral curves of the tibiae.—March 25th. Antiseptic osteotomy was performed on both legs. Splints and bandages were applied as in the previous cases.—March 28th. The mother stated that there had been but little crying, and no pain complained of since the first day. Temperature did not reach 100° Fahr.—April 18th. The cases were removed. The wounds were healed. Splints were reapplied.—May 6th. All splints were removed. The patient was allowed to stand upon the feet.—June 10th. The child had been running about continuously since last date. The tibiae showed no signs of yielding.

CASE IV.—W. P., aged 5. April 1st. Antiseptic osteotomy of both tibiae was performed.—April 4th. The child was restless after the operation, but at this date was quite cheerful. Temperature once reached 100° Fahr.—April 13th. The dressings removed. The wounds were healed, and the limbs straight.—May 9th. The splints were removed; the mother stated she had had great difficulty in retaining them in position, owing to the child's desire to walk. On their removal, he immediately ran about the room. The limbs have retained their rectified position.

Although, at first sight, this method of treatment may seem to be heroic, yet with the aid of Listerism it may be readily and safely undertaken, if proper care be exercised, in the out-patient department of a hospital. An immovable case, which quickly becomes hard, must be used to keep the limb in its new position, to prevent pain and failure of the operation through movements of the fragments, and also to prevent access to the wound by the patients or their friends. I may add that the usual constitutional remedies, and directions with regard to food, are given simultaneously.

THE SIGNIFICANCE OF SUPPRESSION OF URINE AS A SYMPTOM OF INTESTINAL OBSTRUCTION.

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THE occurrence of suppression of urine in a case of intestinal obstruction is said by some observers to indicate that the obstruction is situated high up in the small intestine; the *rationale* being, that the diminished absorbing surface involves a scanty secretion of urine. This is a specious theory, and, did it accord with actual facts, it would be a valuable addition to our present means of diagnostic knowledge on this subject, which, as many a practitioner no doubt deplures, is comparatively scant.

In the history of the following case of intestinal obstruction, suppression of urine was a prominent symptom; but its value as a guide to the seat of obstruction may be left to the reader to estimate.

J. M., tailor, close upon seventy years of age, a remarkably temperate and healthy man, who said he was not previously subject to constipation, was suddenly, on a Friday night, attacked with pain in his bowels. The attacks of pain were intermittent, of a twisting character, and radiating from the umbilicus. They were accompanied by vomiting, and stoppage of his fæces and urine. No relief having been obtained, I was sent for on Saturday night to see the man, who was said to be suffering from "gravel," a term which, in this part of the country, is generally used to mean retention of urine. On examining the pubic region for signs of the distended bladder, I was struck by their absence, but noticed in the hypogastric region a dull doughy tumour. A catheter was, however, passed, to make certain, and to gratify the patient, who attributed all his sufferings to the stoppage of urine; but not a single drop of urine escaped. Thinking the catheter might have been blocked up, a second and a third instrument were passed, with, however, the same negative result. An enema was next administered to relieve the bowels, but it was a failure. Having ordered turpentine stupes and opiates, I left the patient.

The sudden accession of the symptoms in this case, in a subject who denied having suffered from habitual constipation, coupled with early vomiting, and apparently total suppression of urine, suggested some fatal compression or invagination of the small intestines high up, and