

spasm at the knee can always be controlled by plaster of Paris or a Thomas knee brace, and one or both of these used in conjunction with general treatment should be followed by cure of the disease.

In the later stages, when deformity already exists, its reduction must be considered.

The mode of reduction will depend absolutely on existing conditions. If the flexion is due simply to muscular spasm without structural change or subluxation, gradual reduction by extension and counter-extension on a double-inclined plane may be treatment of election, although many prefer the cautious reduction of the deformity under an anaesthetic, with the subsequent maintenance of the correction by the use of plaster of Paris or a splint.

Treatment at a later date must of necessity be operative. Shortening of the ham-strings requires division of their tendons, manually or by the knife. Shortening of ligaments may demand reduction by "brisement forcé." Subluxation requires reduction.

The earliest treatment, then, of a fixed deformity, should be a manual attempt at its reduction, made under an anaesthetic and without the exercise of too great force. This is best done after the method of Whitman. In this, the thigh is extended on a fixed leg while the patient is in the prone position. In this way the danger of producing a tibial subluxation is minimized. Here I may mention the genuclast, of which there are several varieties. This is an instrument for the forcible reduction of flexion at the knee. It is of distinct service in experienced hands, but the method of Whitman is usually sufficient in cases which do not require incision.

If the deformity is due to shortening of tissues, accompanied by firm fibrous or bony union, a supra-condylar osteotomy may rarely be considered, but usually the knee joint must be opened from in front and a wedge removed. This operation must be attempted with caution, often in two stages, as the popliteal vessels may be shortened in compensation to the deformed position and constriction and interference with the circulation or a rupture may be caused by a sudden reposition of the leg.

*Ankle.*—Tuberculosis of this joint is less serious than in either of the foregoing.

Deformity rarely follows. A fixed joint is common, but this is not disadvantageous if the foot is in fair position. If, however, this be not so, a supra-malleolar osteotomy may be considered as early advised by Trendelenberg.

*Shoulder.*—Tuberculosis of the shoulder is less common than a similar lesion of the hip or knee. Fixation of this joint commonly follows this lesion, but here scapular movement is usually sufficient to give a fairly useful member. In some cases one must consider excision or arthroplasty, which is the formation of a