

only recommend such methods in the early stage of the disease; on the other hand, those surgeons who can see nothing good in early operations are fond of citing the cases which have been subjected to operation at all stages of the disease. The statistics thus produced are of necessity very misleading; they include many cases which have been subjected to expectant treatment for a lengthened period, and then operated upon as a last resource. This is of course eminently unfair. We must remember that the question at present is only concerning the disease in its early stage. At certain stages of the disease we find most surgeons of one opinion as to the proper course to pursue; thus, given a large abscess in connection with the joint, with constitutional symptoms, the result of pyæmic absorption, with pain and emaciation, and we find that few surgeons would refuse to open the abscess and remove diseased tissue. In considering the question of operation in hip-joint disease, therefore, we must confine our attention to the question as it affects early cases, and we must not be influenced by the misleading statements made by those who are forever harping upon the dire results of operative procedures, pointing to patients who have been the victims of injudicious treatment by retentive apparatus until the disease has advanced to such an extent that their only hope lies in operation. These cases often do badly, and we would be surprised if it were otherwise. We find, among British authorities, that Barker considers operative procedure legitimate only in the early stages; whilst Marsh, who is an advocate of conservative treatment, seems to think that such measures are only justifiable in the late stages of the disease.

Let us consider for a moment what may be accomplished by operation in an early stage of hip-joint disease. It is possible for us to submit our patient to an operation which is attended with very little risk to life, and we may be able to remove entirely the disease in the articulation. Further, if the disease be restricted to a small area it may be possible for us to operate through comparatively healthy tissue, or at most through tissue which is the seat of a non-infective inflammation (which is attendant upon and surrounds the tubercular deposit); we may reasonably hope for healing by first intention, and, having ac-

complished this, we keep our patient at rest. Surely, under such conditions, the sufferer is in a better condition for speedy cure than would be the case if we trusted to rest alone, without any attempt to eradicate the tubercular deposit which is the cause of the whole trouble. The operation, therefore, in early cases is advocated on good, sound surgical principles, and the results obtained so far are most encouraging. Of course we would expect a better result the earlier the disease is detected and the operation performed.

The resulting deformity after operation is not greater (probably not as great) as after treatment by prolonged rest in splints. The amount of shortening is inconsiderable; this is accounted for by the fact that the growth, in length, of the femur takes place chiefly at the lower epiphysis. Then, again, in long-standing cases of hip disease without operation we have a considerable amount of atrophy of bone going on, due more particularly to continued pressure; the bone is the seat of a rarefying osteitis, and the contraction of muscles about the articulation keeps the articular surfaces constantly pressed against one another, and, as a result, atrophy and shortening takes place. As to the age for operation, we must remember that the operation is much more formidable in very young infants and in adults than it is between the ages of, say, 5 and 16. Many surgeons will not excise the joint in the adult.

The methods of excising the hip-joint are numerous. The older methods by external incision are well known, and it is not necessary to describe them in detail. These operations are comparatively easy to perform, but the great objections to them are that the function of the joint is much interfered with by detaching the muscles attached to the great trochanter; then, again, the head of the bone is forcibly dislocated and made to project from the wound before the neck is sawn through. This procedure entails rough handling of the diseased tissue, which is unnecessarily broken up, and infected material may in this way contaminate the healthy raw surfaces of our wound. Operation by anterior incision is much to be preferred; the earlier operation of this kind was that suggested by Lücke. An incision $\frac{1}{2}$ inch below and internal to the anterior superior iliac