

Erasion or thorough scraping away of the products of the disease is an operation very frequently performed in this city, and has much to recommend it. But it is, of course, only of value in those cases where the disease is confined to the synovial membrane or the articular ends of bones, and is not available in such joints as the hip, shoulder and elbow.

In reference to the two great schools, the non-operative and the excisionist, it seems to me that a rigid adherence to either would be unjustifiable.

The non-operator takes too much for granted in considering a quiescent encapsuled mass of tubercle to have no longer a pathological significance. He wishes to consider as dead, that which is *only sleeping*, and which may be roused into lamentable activity and vitality, by the first shock of traumatism or exposure.

The excisionist, on the other hand, is apt to be too radical in his views, and to forget that the sacrifice of a joint is no trifling matter. Without laying down any hard and fast rule, each of these methods has its *role* in the treatment of this condition. Even amputation is sometimes a necessity, or at least the preferable method of treatment; as for instance was very well illustrated by a case operated on by Dr. Grasett some time ago in the Toronto General Hospital. Here a young man *æt.* 24, a farmer, had been suffering intermittently for 21 years, from tuberculosis of the knee-joint. Finally the limb became useless to him. The disease had extended far above and below the joint, and his general health was suffering. To have excised would have required the removal of a large section of bone, with little hope of securing bony ankylosis, and in his occupation the result would have been worse than useless. Amputation was obviously the preferable operation and it was accordingly done.

Each case then should be treated upon its merits, but I think there are certain broad principles which should guide us. If we acknowledge the possibility of the permanent recovery of a tuberculous joint without systemic infection, and bearing in mind the pathological process which takes place during the progress of the disease, I think a point of vast importance is the early diagnosis of the condition. This is often quite difficult owing to the possible absence or trifling nature of pain, the small amount of swelling, the indefi-

nite history and the absence of constitutional symptoms. Having diagnosed tubercle, however, provided the disease is seen in its *earliest stage*, I believe we are justified in every case in adhering to the expectant plan, so long as the disease does not appear to be progressing unfavorably. The joint is fixed immovably and the patient confined to bed, only until any acute symptoms have subsided. The local application of counter-irritants has not, in my short experience, proved of any value. The best counter-irritant is rest to the part. This may be secured by any of the numerous well-known permanent dressings, for a time at least, followed by a fixative-apparatus the most admirable of which is probably Thomas'. The patient is got out of bed and placed among the best hygienic surroundings at the earliest possible moment. In children, more especially, this plan works admirably. Notwithstanding our best efforts, however, caseation is liable to occur. This we recognize by the plastic waxy condition of the neighborhood which pits on pressure. Hitherto having followed the expectant plan carefully, we must now diverge therefrom. We have reached the point when the diseased product has become, or is about to become, a direct menace to the life of the patient, and conservative surgery warns us to remove that product.

A tolerably free incision is made into the joint and all diseased product removed by erosion. This operation, however, is only of definite value when the disease is obviously superficial. Where the disease originates in, and is as yet largely confined to the synovial membrane, that sac is drained by the aspirator and injected with an emulsion of iodoform, as recommended by Mansell Moulin. In those joints in which erosion is not practicable, this is the proper time at which to excise. Should the starting point of the disease be in the bone an early incision should be made down to the diseased area, and all diseased bone thoroughly removed by the sharp spoon. Should this necessitate considerable destruction of bone, and more especially should the joint be already involved, then it seems to me the more rational method would be immediate excision.

Should sinuses form and resist our best efforts at healing, excision or amputation should be our resort. Of course, in the case of the poor man, unable or unwilling to undergo a somewhat pro-