

can only find record of one case in which grave symptoms of poisoning were noticed, and in that case 200 grms. of a ten per cent. solution were injected (300 grs.). The injections are not repeated while any iodoform is found in the urine. According to Bruns, one of the first effects of these injections is to cause the disappearance of bacilli from the walls of the abscess. This authority reports forty cures out of fifty-four cases of cold abscess after use of the iodoformized ether; Chautemesse has shown that the pus of a tubercular abscess loses its virulence after these injections; Andrassy reports a successful result in twenty out of twenty-two cases; and Barker is "inclined to regard the free use of iodoform as one of the most important advances which have been made of late in the dressing of excision wounds for tubercular diseases." So that, notwithstanding the reproach and contumely which Heyn and Rovsing, Jeffries and Hunter Mackenzie, have sought to cast on this much-abused drug, iodoform has evidently come to stay, and bids fair to outlive the bad odor in which it has so long been held by the profession, and more especially by the laity.

The treatment instituted and I believe almost exclusively practised by Kolischer, of Vienna, deserves at least a passing notice. Struck with the frequency with which tubercular lesions in the lungs heal by calcification, it occurred to Dr. Kolischer to try the effect of supplying tubercular foci with an excess of lime salts. Selecting the acid phosphate as being for many reasons the most suitable, he worked in the following way: When the tubercles had not broken down he injected into the parenchyma an acid solution of biphosphate of lime. As would be anticipated, a high inflammatory reaction follows, accompanied by severe pain, and lasting five or six days. In the case of ulcerations and cold abscesses he uses taupons of gauze impregnated with the same salts. These also set up severe inflammation with its usual accompaniments. During the stage of reaction antiseptic precautions, anodynes and complete rest are enjoined. In the stage of induration, shrinking and absolute painlessness which follows, massage and passive motion are practised. There is no doubt that the high inflammatory reaction thus induced is inimical to

the welfare of the bacilli, and the immediate proximity of the lime salts probably enables the tissues to incorporate them during the temporary cessation in growth of the germs. Whatever may be the *rationale* of this treatment, Kolischer has been able to show some excellent results, such cases as extensive affection of the elbow-joint healing in six to eight weeks and retaining an astonishing degree of mobility—so much so indeed that Professor Albert, in whose clinic the cases were treated, and who was extremely sceptical at first, acknowledged himself a convert and emphatically recommended further investigations in the same direction.

Though the above results and the well-known fact that both pulmonary and the different surgical tuberculosis occasionally undergo spontaneous healing, must not be lost sight of, I am strongly of opinion that in nearly every case where it is possible to do so, we will consult the best interests of our patients by waging against this refractory bacillus a bloody and uncompromising warfare with knife, saw, gouge and chisel.

Probably no other surgeon has written more copiously or bestowed so much faithful labor upon tuberculous diseases of bones and joints, and certainly no surgeon has achieved such magnificent results in their treatment, as Arthur E. J. Barker. Hence a large part of what follows is extracted from his recent writings in the *British Medical Journal*. In helping us to a decision as to the mode of treatment to be adopted in any individual case Mr. Marsh's table of 401 cases treated without operation furnishes us an excellent guide. Without going into his analysis, I may state that the percentage of recoveries was so good in non-caseating cases that we are certainly justified in abstaining from all operation as long as there is no liquefaction of the focus. With regard to the caseating or suppurating cases, it may be regarded as a wholesome rule that unless general tubercular disease contraindicates operation, the infected tissues of a joint should be thoroughly removed as soon as discovered. If the suppurating focus be not so removed, it will in all probability run on to the formation of a large abscess with sinuses burrowing in all directions. What then is to be done with cases which have been allowed so to run on? Here excision is out of the question, and the proper treatment will, in the case of