

commencement of the inflammation, but its appearances may be modified by several circumstances. Thus the swelling cannot be perfectly distinguished, unless the joint be superficial, and the quantity of effused fluid considerable. In such cases the swelling assumes the form of the synovial membrane, and fluctuation can easily be detected. The natural structure of the joint and surrounding parts will, however, tend to alter the uniform appearance which the enlargement would otherwise assume; it has a tendency to manifest itself over those parts of the joint where less resistance is offered; but on this point I need not repeat what I have already said when speaking of abscess and the examination of joints during disease. The sense of fluctuation, generally distinct at first, may soon be rendered obscure by effusion of lymph into the cavity of the joint, thickening of the synovial membrane, or effusion into the peri-articular tissues with oedematous swelling of the more superficial parts. During the progress of the disease some symptoms worthy of notice may occur. The synovial bursæ in the neighbourhood of the affected joints may become implicated. This is often observed during acute inflammation of the shoulder-joint, and gives rise to a sense of crepitation. In some other cases the crepitation seems to depend on change of quality in the synovial fluid secreted. But the symptoms which require closest attention are those which indicate that the inflammatory action has given rise to secretion of pus within the joint. This is usually indicated by a well-marked aggravation of the inflammatory symptoms—severe rigors, high fever, increase of pain, throbbing, starting of the limb, &c. The swelling also increases, but it is impossible to distinguish that caused by purulent effusion from other forms by the sense of touch alone; we must infer the presence of suppuration from the constitutional symptoms just mentioned.

Acute synovitis may run the usual course of common inflammation in other parts of the body, and terminate in resolution. Some weeks generally elapse before this favourable termination takes place. The chance of its occurrence will be modified by the nature of the fluids effused into the joint. Serum is readily absorbed, but if coagulable lymph has been deposited in the synovial membrane and periarticular tissues, the joint will remain stiff for a long time; the disease is liable to recur, and chronic inflammation with ultimate destruction of the joint may be the consequence. Secondary luxations of the femur and tibia have sometimes been observed during this stage of the complaint, in consequence of relaxation or destruction of the ligaments, together with muscular action, and an unfavourable position of the limb. If pus has been secreted the prognosis is still more unfavourable. Purulent collections, the result of acute synovitis, have little or no tendency to find their way into the inter-muscular tissue. The reason of this is, that acute articular inflammation is generally attended by an effusion of lymph in the cellular substance and other tissues around the joint, by which the pus is prevented from forming sinuses; it works its way directly from the joint to the surface, but the cartilages become softened and ulcerated. Ankylosis is the most favourable result that can be expected, but amputation often becomes necessary.

Chronic synovitis may be regarded as an effect or rather continuation of the acute disease just described, for it is highly probable that the low forms of inflammation which constitute primary chronic synovitis (hydrops articulari excepted) are connected with scrofula or some other constitutional affection. Under this view of the subject it is unnecessary to say much about chronic synovitis. The physical signs are the same as those already described, but diminished in degree. The joint is stiff and swollen; its motions are limited and painful; there is always more or less swelling, but this is firm, not attended by a sense of fluctuation, and never presenting the smooth, round appearance of the tumour in acute synovitis. There are little or no febrile symptoms, but every now and then an exacerbation is liable to take place, and the disease to assume more of the acute form.

We should have, however, a very imperfect and limited notion of chronic synovitis if we confined ourselves to the species just alluded to. Inflammation of the synovial membrane, assuming from the outset a chronic form, and depending on some constitutional derangement, presents itself under very different characters, and is of a more serious nature.

Gouty and rheumatic inflammations of the joints are sometimes acute, often chronic. To describe them in a complete manner it would be necessary to pass in review the general history of the two diseases with which they are connected. I shall therefore omit them here, and pass to a description of chronic synovitis in scrofulous patients.

Considerable discussion has taken place between writers on diseases of the joints, relative to the particular tissue affected

in scrofulous affections of these parts. Some, as Sir B. Brodie, locate the disease in the cancellous tissue of the ends of the bones; others are of opinion that it begins in, and is for a long time confined to, the synovial membrane. From my own experience, I am inclined to think that scrofulous disease may commence in any one of the elementary tissues composing a joint; that it may remain confined for some time to the tissue in which it originated, but that, generally speaking, it has a tendency to pass in a gradual manner from one tissue to another until the whole joint, membranes, bones, and cartilages become involved. Scrofulous synovitis is sometimes described under the name of gelatinous degeneration of the synovial membrane. It is of frequent occurrence in some joints—the knee, for example, where it assumes a slow and very insidious form from the commencement. In the earliest stage the appearance of the membrane differs little from that of one attacked by a slight degree of common inflammation; it is partially injected and somewhat thickened at the inflamed points; soon afterwards it begins to soften from the deposit of scrofulous lymph, and is then gradually converted, as the disease progresses, into a pulpy, gelatinous layer of a pale-yellow colour, somewhat resembling that of infiltrated tubercle. According to some authors, the colour is often whitish or light grey; it is certainly more or less mixed with red in many cases, and it is probable that the appearances and consistency of the membrane will depend on the degree of organization which may have taken place in the imperfect lymph effused on the synovial membrane and into its sub-synovial tissue.

The symptoms of chronic scrofulous synovitis are at first obscure, for the disease generally commences in a very insidious manner. It attacks persons under the age of puberty more frequently than adults, and is in a great majority of cases accompanied by the general signs of the scrofulous diathesis. Some slight impediment to the free motion of the joint is often the first symptom observed, and this may continue for weeks or even months, occasionally accompanied by uneasiness or slight pain in the joint before the next symptom—viz., swelling—attracts any attention. This is always indolent, and progresses in a gradual manner. It does not appear to depend on any considerable accumulation of fluid in the joint, for it is not accompanied by any sense of true fluctuation; it has a doughy, elastic feel, and at first assumes the form and limits of the synovial membrane, giving a rounded appearance to the knee-joint, where the progress of the swelling can be observed with facility. When the synovial membrane has undergone pulpy degeneration, and any quantity of the imperfect plastic matter peculiar to scrofula has been effused into the joint, the tumour projects on either side of the articulation, and has a soft doughy feel, which may be mistaken for fluctuation. The skin over the swelling is pale, not much distended, and preserves its natural temperature. It is only at a later stage, when abscess has formed within the joints, that the integuments become implicated. The patient is free from general disturbance beyond what may be attributed to his constitutional state; there is no symptom of fever, in a word; and the local inflammation is betrayed by no other symptoms than obscure pain and gradual swelling. Scrofulous synovitis, however, has a great tendency to pass into suppuration, or more frequently still into the formation of those soft imperfect masses which some call “scrofulous false membranes,” &c., and which compose a great portion of the tumours denominated white swellings.

In a few cases the inflammation assumes a more active character, and some coagulable lymph is effused on the surface of the membrane, but even then we do not find adhesion taking place between the opposite surfaces. After the disease has continued for an uncertain period, some attempt at reaction may be set up, and suppuration ensue, or pus may be effused into the cavity of the joint with very slight aggravation of the general symptoms. In other cases ulceration of the cartilages takes place, either under the influence of the altered membrane, or of the suppurative inflammation, and the distinctive characters of the disease become merged in those of a general affection of the joint.

(To be concluded.)

PORTUGAL—CHOLERA.—By letters received in Liverpool on Saturday morning last, per the *Ganett* steamer, from Lisbon, by a notification of the Portuguese Government, vessels arriving from Bahia are subject to quarantine, in consequence of the declaration of Bahia being infected with yellow fever, and they are marked as “suspected.” England has again become subject to the same annoyance, by the declaration of Glasgow being suspected of Cholera, and all other English ports are said to be shortly declared “suspected” also.