

then return to remain permanent, perhaps again to intermit. If the child is questioned as to pain the answer is usually given that there is none. The surgeon himself in the early stage of the disease finds some difficulty in locating pain. I think you will agree with me that these are not the symptoms usually found following an injury to a joint in a healthy person.

In order to get a clear idea of the disease it is necessary that we should have some knowledge of what is meant by scrofula or struma. Billoth says it is a disposition to chronic inflammation in which the inflammatory process may lead to the development of granulation, suppuration, or caseous degeneration, or in another place we assume a scrofulous diathesis for those cases in which a slight and transient irritation of some part of the body sets up a chronic inflammatory process, which not only outlasts the irritation, but spreads or continues independently of it, which usually results in suppuration or caseation, and rarely assumes the form of a pure hyperplasia. And, in speaking of the pathological changes that take place during the course of the disease, he mentions the fact that through the progress of the plastic infiltration through the synovial membrane gradually loses its former structure; the connective tissue, filled with innumerable new cells, gradually becomes homogeneous, and from the constantly-increasing vascularization the tissue histologically exactly resembles that of granulations. In these spongy granulations small white nodules form here and there; these are sometimes like mucous tissue, sometimes they are composed chiefly of pus cells and even giant cells. The tubercular nature of these nodules found in white swelling has been long disputed; here, as in other pathological products whose origin is doubtful, inoculation has been tried; and König, by inoculating some of the fungous proliferations of joints, has induced miliary tuberculosis, while Hueter introduced isolated nodules from a synovitis fungosa into the anterior chamber of the eye of a rabbit, and this was followed by choroidal tubercle, and, after a long period of incubation, by general tuberculosis. These experiments have been repeated by many pathologists and surgeons, and there can be no doubt that most cases of so-called granular or fungous

synovitis are of tubercular nature. Now, if the experiments of König and Hueter be correct as to the possibility of producing general tuberculosis by the inoculation of those small white nodules found in the granulations, it is a strong proof, to my mind, that the disease cannot be the result simply of local causes. I do not, however, wish you to understand that all pathologists hold the views of the tubercular origin of this disease. Gurlt, of Berlin, who has had ample opportunities of studying the pathological anatomy of bone and joint diseases, says that he has not met with tubercle either in joints or bones. And Virchow considers himself justified in stating that tubercle is fully compatible with the acknowledged changes of inflammatory products. Neither of these gentlemen have, as far as I can learn, made any experiments by inoculation, and consequently their opinions will not have as much weight with me as those before mentioned. One of two things must be a fact, either the changes in the inflammatory product result in tubercle, or the elements necessary for its production existed in the system prior to the inflammation. The latter is the most likely. I might here mention a case in point. Some two years ago I had a patient under my care, in the Toronto General Hospital, suffering from hip-joint disease, and in the same institution was a brother with phthisis, and a sister with spinal curvature. We have here clear proof of the existence in the family of a strumous diathesis manifesting itself in three different forms, as phthisis, joint disease, and spinal curvature. I have no doubt that some of the gentlemen here present will take exception to my classifying scrofula and tubercles together, but I am a firm believer in one poison, if I may so express myself, being the cause of the different forms of disease mentioned. Again, I have under my care at the present time a family in which one sister died a few months ago of consumption, another is suffering from hip-joint disease, and a third confined to her bed with what I take to be a tubercular abscess of the mesenteric and pelvic lymphatic glands. In the case of the daughter suffering from hip-joint disease, I have made careful enquiry to find whether she at any period of her life had received an injury which might account for her present trouble, but I