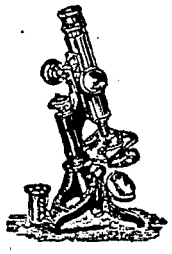
Medical Matters.

HEREDITY, PORTALS OF ENTRY OF INFECTION AND IMMUNITY IN TUBERCULOSIS.



Dr. M. P. Ravenel, Assistant Director Henry Phipps Institute for the Study of Tuberculosis, Philadelphia, discussed Heredity, Portals of Entry of Infection, and Immunity in Tuberculosis, at the Sanitary Congress held at Syracuse, U.S.A. As reported in the *Dietetic and Hygienic Journal*, he said a widespread belief in the transmission of the disease through heredity had been a most pernicious doctrine. Medical literature records only twenty authenticated cases. Personally, he does not believe in an inherited susceptibility. We should concentrate our attention less on the soil than on the excretions that are the proved cause of infection. Dr. Ravenel does not believe that the respiratory tract is the main portal of entry, attaching far more importance to the intestinal canal. Experiments made to establish the former have been defective because the œsophagus was not stopped up. The channel is through the thoracic duct and right heart to the lungs, where the bacilli are strained out in the capillaries where the primary infection takes place. A distant infection results through the amoeboid motion of a bacilli-bearing leucocyte through the lymphatic system. Immunity is probably gained by the formation of antibodies in slight, unrecognised onsets of the disease. The greatest amount of infection occurs in the small intestine. Tonsils are also frequently affected, then the bacilli pass to the lungs through the lymphatics. The stomach seems immune. The bacilli can pass through the intestinal wall without leaving any traces; they probably pass into the chyliferous vessels. Skin inoculation is possible; the hair and eye are also avenues of infection. Immunity is an ability to resist all onslaughts of disease. Post-mortem examinations point to widespread infection; in most cases the dose of the bacilli has been recovered from and immunity has been developed. Therefore tuberculosis is curable. Experiments have been made to bring about artificial immunity. An attempt is being made to immunise cows so that their milk will contain antibodies. It is quite possible to vaccinate an animal against tuberculosis. The great lesson to learn is that we must insist on the laws of hygiene; the sputum and other discharges are the cause of infection, therefore destroy them.

Lectures on Anatomy and Physiology as Applied to Practical Nursing.*

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LECTURE II.

(*Continued from page* 86.).

One of the most important and interesting diseases of the joints which nurses are called upon to attend, is that which is known as Morbus Coxæ, or Disease of the Hip Joint. It is much more common in childhood than in later life, and begins as a rule with slight occasional pains in the hip; then there is more or less stiffness of the joint, and the child complains of weariness, and drags the affected leg as it walks. After a little time, if the trouble is not recognised and treated, the pain becomes more acute. The child will suddenly awake in the night, screaming with severe pain, because a spasmodic contraction of the muscles has jolted the inflamed surfaces of the joint together. It is very usual in such cases for the child to complain first of pain in the knee on the affected side. Indeed, this is so marked a symptom that the complaint of pain in the knee is often the first thing that leads to the discovery of the disease. When the doctor presses on the knee joint or draws the thigh downwards, and then allows it to retract, this jerks the head of the femur up against its cavity; and the pain in the hip and also in the knee is immediately increased in consequence of this pressing together of the inflamed surfaces.

After the trouble has proceeded for some time—and, especially amongst the poor, these cases are often much neglected at first—some swelling takes place around, and fluid collects inside, the hip joint. The consequence is that the side of the buttock affected becomes flattened, the lower fold becomes less evident, and the whole limb seems at first to be longer than its fellow. As, however, the disease goes on, and either an abscess forms around the joint, or the head of the bone becomes softened and absorbed by the disease, either the abscesses burst at several points on the front or back of the thigh as shown in the recent illustration (Fig. 23), or the joint becomes perfectly fixed in consequence of what is called Ankylosis, taking place. By this term is meant that the head of the thigh bone becomes densely united with the cavity on the hip bone in which it lies, so that all future movement

* These Lectures commenced on October 6th, 1906. Back copies of the Journal (post free 2d. each) can be obtained from the Offices.

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