

Elementary Anatomy, AS APPLIED TO NURSING.

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LECTURE II.

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THE lymph canals which are connected with the intestines lie in the mesentery, or the membrane which suspends the intestines to the back wall of the abdomen, and the lymphatic glands through which these canals lead are therefore termed the *mesenteric glands*. The lymphatic system, therefore, feeds the blood, so to speak, with a fluid which does not merely represent the drainage from the blood vessels, but it contains very important materials for the nourishment of the blood itself. In fact, the lymphatics pick up from the other organs, and especially from the intestines, the materials which are necessary to nourish the whole body, and convey these into the blood in such a form that, during the circulation, these materials can be taken up by the tissues which especially require their constituents for their proper nourishment. A simple method of impressing this upon your minds would be to compare the system to the Co-operative Stores, which under one roof combine a great number of different departments supplied by an equally varied number of wholesale manufacturers, so that in this one house a purchaser can obtain all the articles he may require, however varied and apparently incongruous. In like manner, the muscles will draw off from the blood those constituents which give their special power; the nerves and cartilages and all the other tissues of the body will receive their equally necessary, but widely different, constituents.

At the same time, it must be remembered that noxious, as well as useful, materials, find their way into the human body; and it is an interesting fact that the lymphatic system not only has the power of sucking up nutritive supplies for the blood, but also acts, as we shall see hereafter, as a kind of outpost sentry, warning the body corporate of the approach of danger. For example, a poisoned finger, that is to say, a wound growing larger or smaller which has become irritated by the admission into it of poisonous material, sooner or later, and generally within a few hours, causes pain up the hand and along the forearm; and in a sufficiently severe case, upon inspection, you will find a thin red line along the course of the pain, which terminates, probably, in a small hard lump behind the inner side of the elbow; this being an inflamed lymphatic gland, and the red line denoting the course of the superficial lymphatic canals which have been irritated by the passage of poisonous ma-

terial. If the warning of this enlargement be neglected, and the poison be not removed, the next gland, or chain of glands, become, in like manner, implicated and inflamed. Without going into details, it is sufficient to remember that the lymphatic system, therefore, carries out this useful function of warning.

Well marked examples of inflamed glands are found in the large lumps which occur in the neck in strumous persons, especially in children, and which generally break down into the formation of abscesses.

In the next place, it is possible to understand how the passage of poisonous material is thus facilitated into the blood, with the result that the disease, popularly known as blood poisoning, can be caused. Whenever, therefore, there is an open wound, there is a channel ready for the absorption of what we shall hereafter call *septic* material into the circulation. In some parts this is more readily accomplished than in others, but the course of the disease is the same in all; the patient frequently suffers from rigors or shivering attacks, with a greater or less amount of fever, which generally increases in severity, and, in bad cases, the condition known as septicæmia or pyæmia is produced; abscesses being formed in different parts of the body as nature's effort to get rid of the poisonous material from the system. Without a wound, however, there are many forms of blood poisoning which seem obscure until one realises the immense power of the lymphatics, thus to introduce morbid material into the system generally. A series of cases, which occurred in epidemic form some time ago, and in which the glands of the groin and behind the knee even went on to the formation of abscess were found to be due to the wearing of coloured stockings, in the preparation of which some poisonous material had been employed.

The practical point to be remembered, so far as inflamed glands go, is that when one is found the surgeon looks back along the course of the lymphatic canal leading to the gland, to see the cause of the trouble. The enlarged glands in the arm, therefore, are often due to poisoned wounds in the fingers and hands; enlarged glands in the armpit to irritating diseases of the breast, notably cancer; in the neck, to strumous deposits in the lung, and very often amongst the very poor to pediculi in the hair of the head; in the knee or groin, to affections in their vicinity.

Sometimes the causes of the disease is very obscure and difficult to find, and especially is this the case now-a-days when everything is adulterated, and our flour contains alum, and our wall papers are made æsthetic with arsenic. Perhaps you know the fable which describes the adventures of four flies in search of a breakfast, and which go to prove the dangers to which the human subject

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