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The Tonsil and the Lymphoid Tissue

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Two recent observations give us an impression of the histo-physiology of the tonsil.

It was found that the plasma-cellular reaction takes place in the lymphocytic fields (i.e. the tertiary nodules) of the lymph node (van Buchem). The same localization was found in the spleen (Langevoort). In view of the similarity of construction it is highly probable that in the tonsil the plasma-cellular reaction also takes place in the lymphocytic fields.

Gowans has proved that the recirculation is a fact and that the place where lymphocytes selectively reenter the lymphoid tissue is the epitheloid venule, which are lying in the lymphocytic fields.

These findings combined with the hitherto known facts give us the following picture of the histophysiology of the tonsil: The antigen enters the tonsil via the epithelium (loose connective) and is phagocytised by the reticulum cells. In the reticular tissue there is a constant flow of lymphocytes from the epitheloid venule to the marrow. Now, in these lymphocytic fields, the plasmacellular reaction takes place in response to the antigen.

Thus, the lymphocytic fields can show a wide range of aspects depending on the rate of lymphocytic recirculation and the degree of the plasmacellular reaction.

When reviewing the P.A. of the tonsil with above conception in mind, it becomes clear van Buchem, The Tonsil and the Lymphoid Tissue 97

that there is no histologic proof for the diagnosis "hypertrophy of the tonsil" and as the histologic structure of the tonsil is the exponent of its normal function to react upon noxes

the expression "inflammation" is not applicable to the lymphoid tissue as it is to any other tissue in the body.