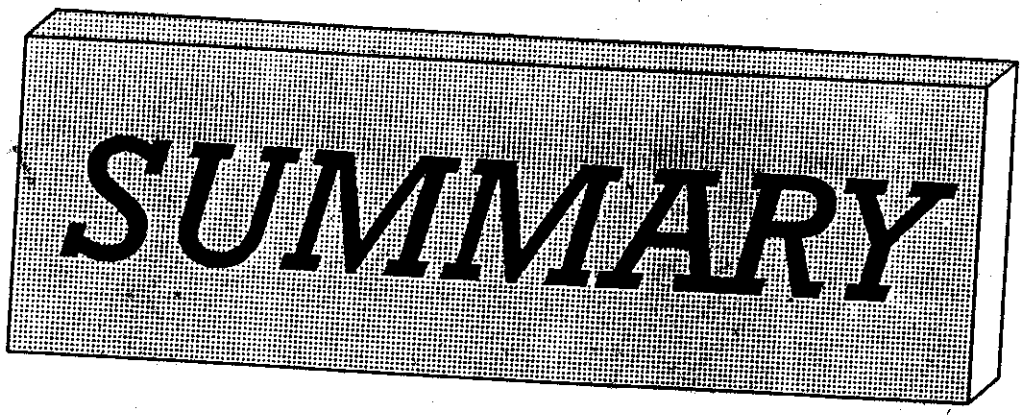
SUMMARY

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Humoral immunity means the production of immunoglobulins by special cells called plasma cells that are derived from B-lymphocytes.

Its action is based on production of specific antibodies against specific antigens via proliferation of B cells to produce plasma cells that are able to produce different varities of immunogloblins, these immunoglobulins are protein molecules that carry antibody activity. They are Ig(G), Ig(M), Ig(A) Ig(E) Ig(D). These antibodies can bind to bacterial or viral receptors prevnting them from binding to host cells.

Ig(G) is one type of immunoglobulins that is the dominant one in the extracellular fluid, so its main function is the protection of tissue fluids against toxins- viruses and Bacteria.

Ig(M) is another type of immunoglobulins that is found mainly in the blood and so its main role is the protection of circulation against bacteria, toxins and viruses.

Chronic non specific tonsillitis usually follows repeated attacks of acute or subacute tonsillitis, it is common between 5-15 years. The best treatment of chronic tonsillitis is tonsillectomy by dissection.

The aim of the present work is to study the possible changes in humoral immunity (IgG-IgM) due to chronic tonsillitis and to study the effect of tonsillectomy on these changes.

The present study was carried out on 30 patients ranging from 5-15 years diagnosed clinically to have chronic tonsillitis, blood sample was taken from each patient one week before operation and one month after operation, serum was separated by centrifuge and serum levels of IgG and IgM were estimated using single radial immunodiffusion plates.

The results obtained from this study revealed presence of peroperative high serum levels of IgG and IgM, these levels decreased postoperatively to become near normal levels.

The pre-operative high levels of Ig(G) can be explained by presence of continuous stimulation to the immune system by the repeated infection of palatine tonsil that leads to release of high levels of Ig(G) which usually increases later in the disease after repeated infections this high levels decreased significantly after removal of the palatine tonsil which was the source of stimulation and the body returned to its normal state.

The pre-operative high levels of (IgM) may be explained as the repeated infection put the palatine tonsil in a state of continuous subacute infection that leads to continuous stimulation to the immune system with increase in the levels of (IgM) that usually disappears earlier than IgG in the disease .

The effect of chronic non specific tonsillitis on the general health and the effect of tonsillectomy on the body health and on the general immunity was studied by many researchers. It is a fact that chronic non specific tonillitis acts as a septic focus in the body resulting in significant health care costs and health hazards such as rheumatic heart diseases and

glomerulonephritis specially in children, also as reported by many researchers chronic non specific tonsillitis acts as a continuous antigenic stimulus for the immune system leading it to produce high levels of immunoglobulins above normal levels specially Ig(G) and Ig(M) causing disturbance in the action of the immune system.

From this study we can conclude that chronic non specific tonsillitis acts as a continuous antigenic stimulus for the immune system causing it to produce high levels of immunoglobulins specially Ig(G) and Ig(M) leading to disturbance in the action of the immune system of the body, this disturbance was corrected and the immune system returned to its normal state after tonsillectomy.

Also we can conclude that tonsillectomy does not disturb the immune system but as reported from the present study tonsillectomy can safe the body from some hazards of chronic septic focus and also can safe the body from the disturbance that occured in its immune system due to the effect of chronic tonsillitis, these results also can give us an idea that the body can get a benefit from removal of the chronically inflammed tonsil.