

Ghon Complex

Ghon's complex is a lesion in the lungs which occurs from a primary tuberculosis infection. It refers to the combination of a caseating granuloma in the lungs (a Ghon focus) with lymphadenopathy of the ipsilateral hilar lymph nodes in that lung. When these findings are seen together, it is called a Ghon complex. It typically occurs after a primary infection and is often seen in children.



PLAY PICMONIC

Calcified Focus of Infection

Calcified-cow Focused-eye

The first portion of a Ghon complex is the Ghon focus, which is a caseating granuloma of tuberculosis bacteria that will undergo calcification over time. This process is controlled by cell-mediated immunity. Eventually when the Ghon complex becomes fully calcified, it can be identified radiographically and is known as a Ranke complex.

Hilar Lymph Nodes

Hitler hit by Lymph-lime

To be considered a Ghon complex, the ipsilateral mediastinal hilar lymph nodes of the lung must be involved, since these lymph nodes receive drainage from the Ghon focus.

Primary Tuberculosis

1st Degree batting at TB-TV

The Ghon focus, which is part of the Ghon complex, occurs from a case of primary TB, where the bacillus causes an area of inflammation in the lung, leading to parenchymal caseating necrosis. Often, healing occurs and viable bacteria are enclosed in a calcified shell, allowing the infection to be reactivated later.

Typically in Children

Child

Children are non-immune hosts, so primary TB can progress to bacteremia and invade nearby lymph tissue. Furthermore, children may face the very serious complication known as miliary tuberculosis.