Headcheese Sign: A Useful Radiological Marker

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A 40 year old woman presented with progressive dyspnoea for three months. She had earlier been treated for asthma with inhalers for a long time. However, the medication gave only partial relief. She worked as a jute bag designer. On examination, she was tachypnic with respiratory rate of 33/minute and oxygen saturation of 81% on room air. There was no cyanosis. Chest examination revealed scattered crepitations in both lungs. An initial chest X-ray showed fluffy opacities in both lung fields. However, sputum for GeneXpert™ was negative. An HRCT scan of thorax was done which showed (Figure 1) a heterogeneous appearance of upper and middle zones of both lungs with juxtaposition of low, normal and high attenuated regions. This is called “headcheese sign” of thorax.

The name of this sign is derived from “headcheese” which is a European dish consisting of meat pieces. The name indicates the heterogeneous mosaic appearance of thorax. This occurs due to infiltration of inflammatory cells in parenchyma (ground glass opacity) in a patchy distribution with normal lung in between. There is also a bronchospastic component of the underlying disease which causes distal air trapping. This gives rise to the low attenuation regions¹. Thus, headcheese sign indicates a dual pathophysiology: lung parenchymal infiltration and obstruction of small airways.

The commonest cause of this radiological appearance is hypersensitivity pneumonitis². It usually occurs after prolonged exposure to the culprit allergen. In our patient, the exposure to jute was probably responsible for the lung pathology. Now, it has been found that the “headcheese sign” may occur in other conditions like atypical lung infections with bronchiolitis or sarcoidosis¹. But infections are mostly of short duration, whereas hypersensitivity pneumonitis is a chronic condition. Thin section CT scans are the best in identifying the radiological appearance¹. The air trapping component may sometimes be missed in normal scans. Expiratory films are needed to delineate the low attenuation parts better¹.

We present this case to sensitize clinicians to this radiological sign. In doubtful clinical situations, this may help in diagnosing the underlying lung disease.

References


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