Could Tuberculosis Cause Restrictive Cardiomyopathy?!

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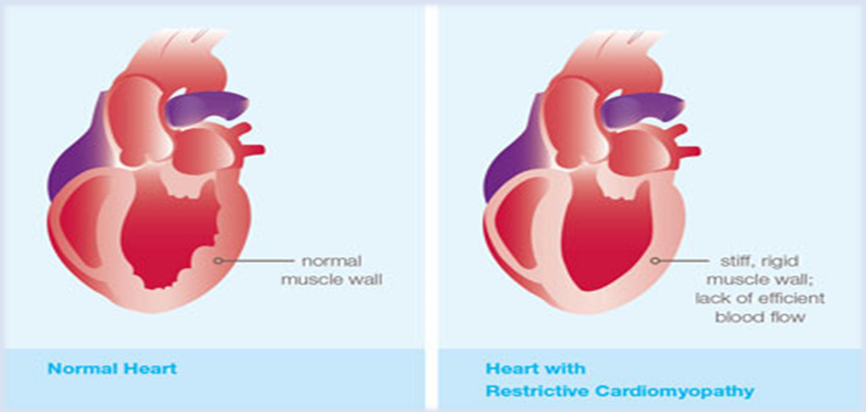
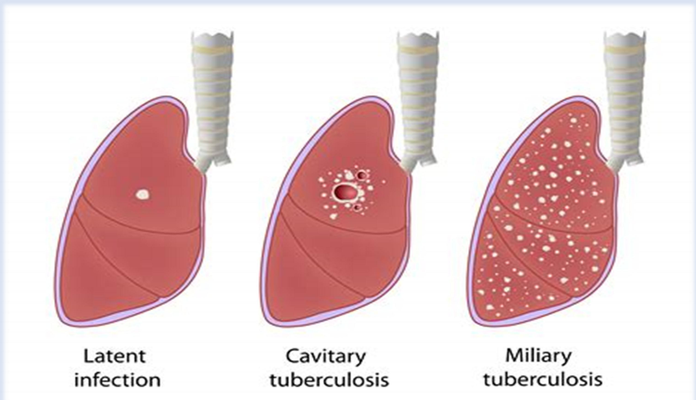
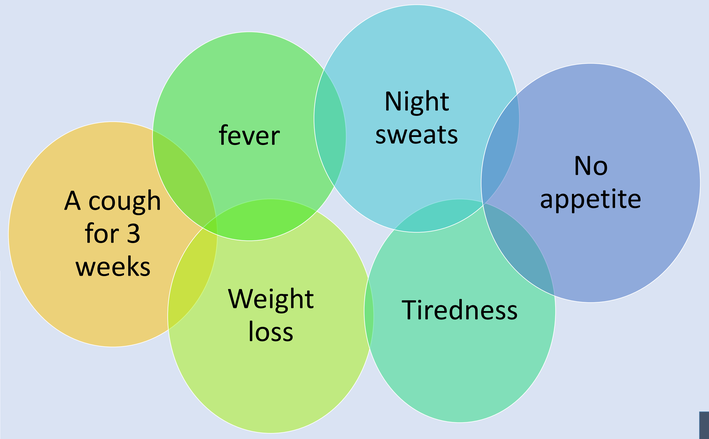
Introduction:-

Restrictive Cardiomyopathy "RCM" is a rare form of cardiomyopathy that characterized by restrictive filling of the ventricles which lead inability to relax and fill blood results in a back up of blood into the atria, lungs and body causing the symptoms and signs of heart failure. RCM appears to affect girls somehow more often than boys. There is a family history of cardiomyopathy in 30% of cases. In most cases the cause of the disease is idiopathic, in children the first symptoms of RCM often seem related to problems other than the heart but the most common symptoms at first may appear related to lung. Children with RCM frequently have a history of repeated lung infections or asthma.(1)



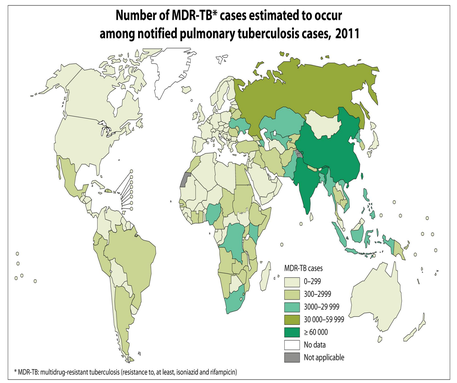
Tuberculosis "TB" is mainly cause by mycobacterium tuberculosis for most cases which typically leads to the development of delayed hypersensitivity to M. tuberculosis antigens, which can be detected by the tuberculin (Mantoux) skin test.
The immunity to M. tuberculosis is primarily mediated by TH1 cells, which stimulate macrophages to kill the bacteria. This immune response, while largely effective, comes at the cost of hypersensitivity and the accompanying tissue of the infection or re-exposure to the bacilli in a previously sensitized host results in rapid mobilization of a defensive reaction but also increased tissue necrosis.(2)

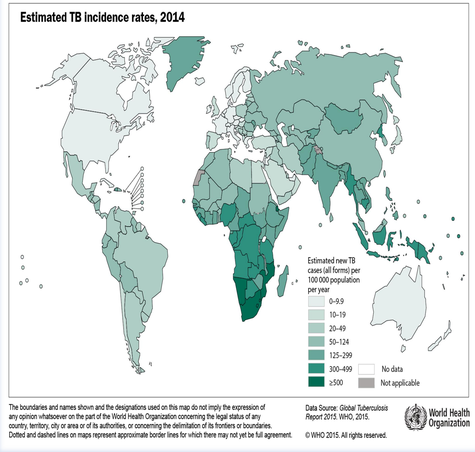




Discussion:-

Worldwide, WHO recorded 8.7 million new diseases and 1.4 million deaths in 2011, including 500,000 children and adolescents under the age of 14, of whom 64,000 have died. Despite considerable success in the last 10 years, only about a quarter of sufferers worldwide receive adequate drug therapy. Germany is one of the countries with low tuberculosis incidence (5.3 new cases / 100 000 inhabitants / year), among other Western industrialized countries. There is a worldwide increase in the resistance rate of tuberculosis to first-line antituberculosis (isoniazid: INH, rifampicin: RMP, ethambutol: EMB, streptomycin: SM, pyrazinamide: PZA). Particularly feared here is the "Multi-drug-resistance" (MDR) against the most effective antituberculotica INH and RMP, which can be detected in molecular biology even in the case of suspected patients from risk areas directly in the examination material.(3) In 2014 there are Parts of the world with high rates of TB include: Africa – particularly sub-Saharan Africa (all the African countries south of the Sahara desert) and west Africa ,southeast Asia – including India, Pakistan, Indonesia and Bangladesh ,Russia ,China ,South America and the western Pacific region (to the west of the Pacific Ocean) – including Vietnam, Cambodia and the Philippines (4)





Conclusion:-

TB can cause RCM in latent stage because the RCM result from fibrosis in anywhere in body .

References:-

1) https://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/...
2) Kumar V, Abbas AK, Fausto N, et al. Robbins and Cotran Pathology Basis of Disease. 7th ed. Philadelphia, PA: Saunders Elsevier;2003.
3)http://www.labor-limbach.de/Tuberkulose.668.0.html?&L=0
4)https://www.nhs.uk/conditions/tuberculosis-tb/