Silico-tuberculosis amidst COVID-19 Pandemic: Global Scenario and Indian Perspective

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Abstract

Purpose: Inhalation of crystalline silica-rich dust particles can result in the deadly occupational lung disorder called silicosis. The risk of contracting tuberculosis and the potential for lung cancer increase as a result of silicosis. This review article aims to bring to light the state of Silicosis and TB scenario in the world and India for evaluating hurdles in the present and future to achieve the elimination road map, and assess these conditions in the backdrop of the COVID-19 pandemic. **Methods:** A PubMed Central search was conducted using the keywords "silico-tuberculosis" and "prevalence" and the time period of the last 20 years, which yielded 15 studies, out of which only the following were found to be relevant in terms of exemplifying the prevalence of Silico-tuberculosis at various geographical locations around the world. **Results:** A patient with silicosis has a 2.8-2.9 times higher risk of developing pulmonary tuberculosis and 3.7 times that of extrapulmonary tuberculosis. Incidences of missed cases when tuberculosis was misdiagnosed with silicosis due to indifferent clinical manifestations of the two in the initial stages aren't uncommon. The duration of exposure to silica and the severity of silicosis, have a direct relation with the propensity to develop tuberculosis. As per a study, an average gap of 7.6 years has been noticed in a South African population for Silico-tuberculosis to develop post silicosis. In a study done on mine workers at Jodhpur, Rajasthan, it was seen that there is no definitive relation between patient with silicosis and possibility of having Covid-19. **Conclusions:** This paper has focused on the coexistence of silicosis and tuberculosis. It has been seen that the risk of tuberculosis is highly increased with pre-existing silicosis. There is a big need for the integration of the Silicosis control programme with Tuberculosis elimination programme for the government. A few of the steps that can include assessing the workplaces, periodic monitoring of the workers' health, active case surveillance, identification of hotspots, and introducing reforms to curb the spread of dust and particulate matter from industrialized areas be taken in this regard.

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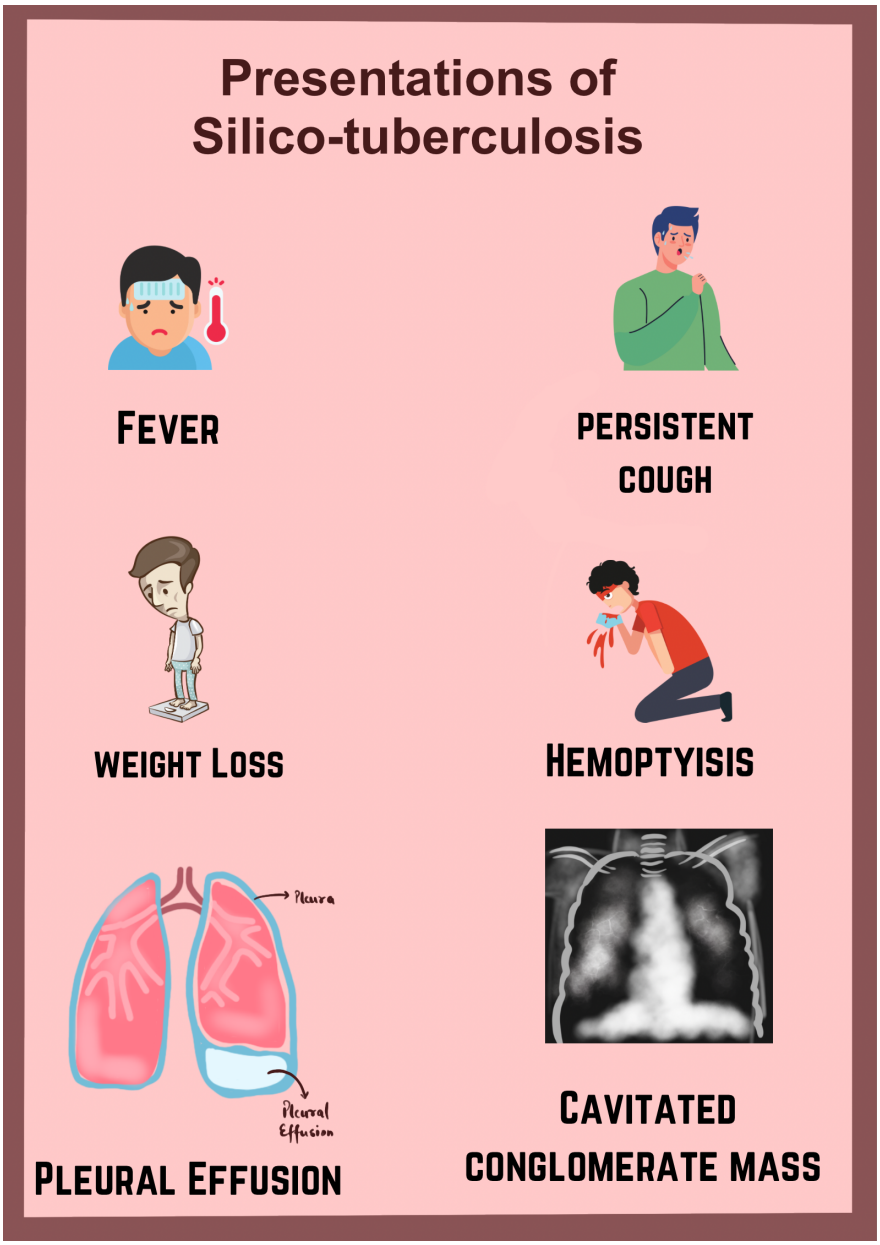

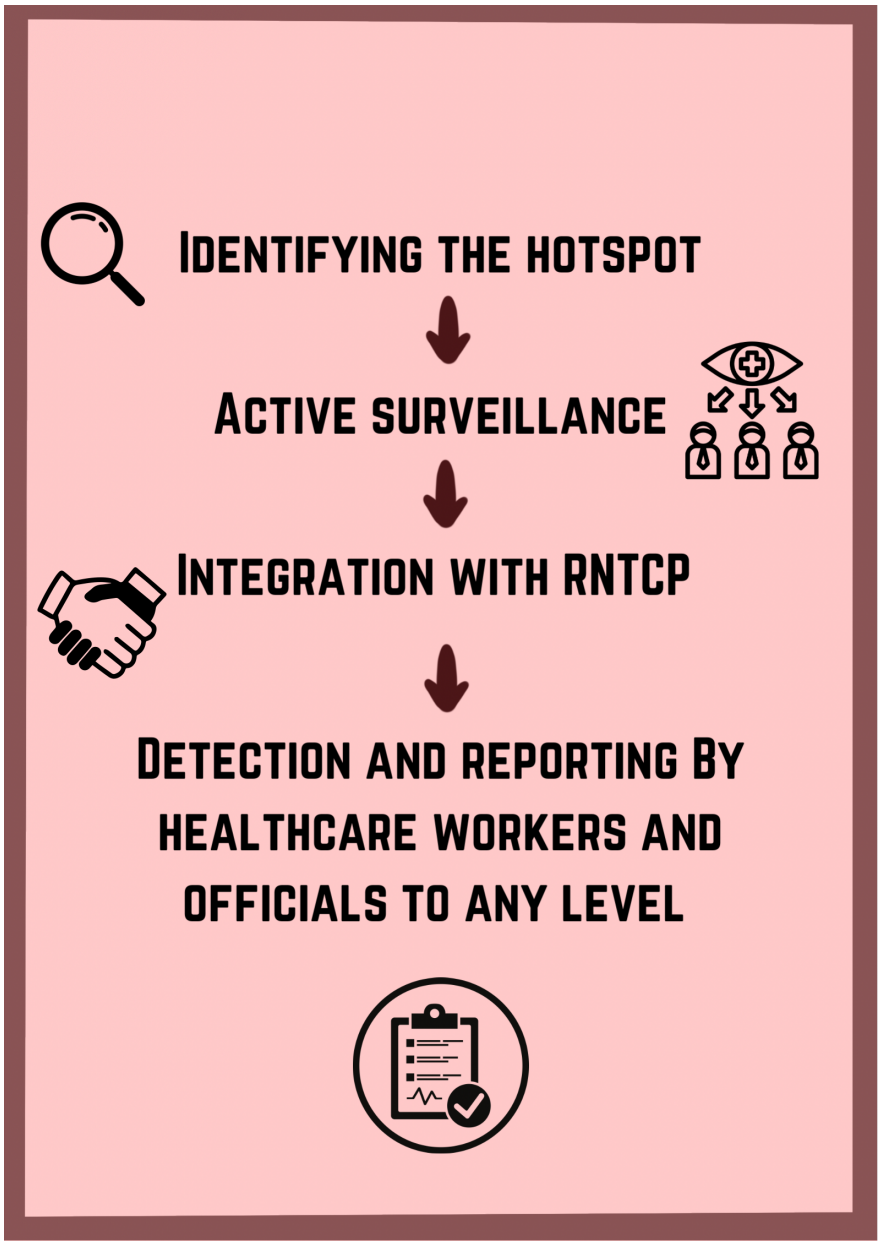

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