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Justification Letter

This is to state that Dr. Abanti Das, is an alumni of the prestigious AIIMS New Delhi from where she has pursued her MBBS, MD (Radiology), Thoracic Radiology Fellowship under the mentorship of Prof. Ashu Seith Bhalla. She has subsequently worked at VMMC and Safdarjung Hospital and National Cancer Institute, Jhajjar AIIMS New Delhi as faculty prior to joining AIIMS Kalyani as Associate Professor and In charge of Department of Radiology.

She has 27 publications in various PubMed indexed national and international journals and has contributed six book chapters including the recently published "Comprehensive Textbook of Clinical Radiology. Vol I Principles of Clinical Radiology, Multisystem Diseases and Head and Neck. 1st Ed. India" by Elsevier- Saunders, Mosby, Churchill; 2023. 3.7.2.

She has been awarded Prof. V. Ramalingaswamy Book Prize for best intern at Rural Health Centre, Ballabhgarh, AIIMS New Delhi in 2010 and has also worked as Research Officer in the ICMR funded project titled "Pilot Implementation of Collaborative Digital Diagnosis System using Medical Imaging" under Prof. Arun Kumar Gupta (Project Investigator) in Department of Radio-diagnosis at AIIMS, New Delhi in 2017.

She is a keen researcher with specific interest in "Thoracic Radiology". She has previously published work on "Dilemma of diagnosing thoracic sarcoidosis in TB endemic regions" and biomass fuel exposure related lung changes which are very pertinent and prevalent lung diseases in developing countries like India.

The present study deals with evaluation of radiological features, specifically HRCT findings in symptomatic jute mill workers. Majority of the jute mills in India are located in West Bengal along the banks of river Hooghly including Kalyani and its neighboring areas. The workers associated with this industry are often found to have byssinosis based on clinical symptomatology and abnormalities on pulmonary function tests (PFT). The pattern of PFT abnormality i.e obstructive, restrictive or mixed in known to have a direct correlation with duration and concentration of dust exposure in workers.

Most of the existing literature on occurrence of byssinosis in Indian jute mill workers have studied the clinical symptomatology and PFT abnormalities. However, there is sparse description of their imaging findings including HRCT changes. One study conducted on jute mill workers in Bangladesh performed HRCT on subjects who had restrictive or obstructive pattern of lung disease on spirometry. They reported fibrosis in those with restrictive pattern, but, mild to moderate obstruction had no findings on HRCT. Only severe obstruction presented with overinflation. Moreover, majority of the studies on Indian jute mill workers have been performed in late 1990's and early 2000 with a paucity of recent literature.

While the previous studies dealing with pulmonary and other healthcare concerns of jute mill workers were conducted at the industrial units of jute mills, our study differs from the previous ones in being a hospital-based study. Symptomatic jute-mill workers (presently /previously employed) who visit our

pulmonary medicine OPD with respiratory complaints and are advised to undergo HRCT as a part of their diagnostic work-up shall be included in the study followed by their PFT.

To the best of our knowledge, no such study has been performed to analyse the pulmonary changes on HRCT in jute mill workers. This study will not only allow us to evaluate the radiological features of byssinosis in jute mill workers but will also further our understanding of the disease in terms of its severity and imaging manifestations depending on duration of exposure on correlation with PFT changes.

Place: KALYANI

Date: 18/09/2024

Signature of Executive Director of the Institute

(with name and stamp)

Prof.(Dr.) Ramji Singh
Executive Director
All India Institute of Medical Sciences
(AIIMS) Kalyani, West Bengal