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Study of musculoskeletal tuberculosis among patients in a tertiary care health setup in North East India

North East India is the north eastern region of the country comprising of eight states with 4500 km of international boundary with China, Myanmar, Bangladesh and Bhutan having >40 million population and 220 ethnic groups. North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), Shillong is the Post Graduate medical and health institute catering tertiary health care services to the patients of the entire region. North East India is bearing a considerable burden of tuberculosis with increasing cases of extra pulmonary tuberculosis where musculoskeletal tuberculosis is found to be a diagnostic dilemma to the treating clinicians. The study was carried out for understanding the prevalence of musculoskeletal tuberculosis and its clinic-bacterial profile among the patients attending the NEIGRIHMS hospital during 2015-2016 using both conventional and molecular diagnostic tools. Ultrasound guided pus aspiration, synovial fluid, bone biopsy and pus swabs from 52 suspected musculoskeletal tuberculosis patients were collected and subjected for laboratory detection of *Mycobacterium tuberculosis* infection employing morphological, cultural and molecular identifications. The study revealed 46.2% musculoskeletal tuberculosis with majority in the age group of 21-30 years (28.9%). Hip and knee joints were found to be affected more (23.1% each) followed by lumbar spines (19.2%). Ultra sound guided sample collection showed significantly better detection (71%) than the pus swabs. Molecular diagnosis using polymerase chain reaction assay is proved to be superior (46.2%) to culture (25%) and microscopy (1.92%) in terms of diagnostic accuracy, treatment initiation and avoidance of complications in better management of such paucibacillary tuberculosis.

Biography

Anil Chandra Phukan has completed MD in Medical Microbiology from Dibrugarh University, Assam and DMV from Pune University, India and obtained DSA from COTTISA, Bangkok, Thailand under WHO Fellowship. He has worked as a Senior Scientist in Indian Council of Medical Research. Presently, he has been working as the Dean of Academics and Professor and Head of Microbiology Department, NEIGRIHMS, Shillong, India with active involvement in implementation of Revised National Tuberculosis Control Program, India and other national health programs. He has several national and international publications in reputed journals. His research activity focuses on understanding of molecular epidemiology of infectious diseases.

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