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A Diagnostic Challenge of Drug Resistant Childhood Tuberculosis in Developing World

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Abstract : The emerging trend of Drug resistance in childhood Tuberculosis is increasing worldwide and now becoming a priority challenge for National TB Control Programs of the world. Childhood TB accounts for 10-15% of total TB burden across the globe and same proportion is quantified in case of drug resistant TB. One third population suffering from MDR TB dies annually because of non-diagnosis and unavailability of appropriate treatment. However, true Childhood MDR TB cannot be estimated due to non-confirmation. Diagnosis of Pediatric TB by sputum Smear Microscopy and Culture inoculation are limited due to paucibacillary nature and difficulties in obtaining adequate sputum specimens. Diagnosis becomes more difficult when it comes to HIV infected child. New molecular advancements for early case detection of TB and MDR TB in adults have not been endorsed in children. Multi centered trials are needed to design better diagnostic approaches and efficient and safer treatments for DR TB in high burden countries. The aim of the present study is to sketch out the current situation of the childhood Drug resistant TB especially in the developing world and to highlight the classic and novel methods that are to be implemented in high-burden resource-limited locations.

Keywords: drug resistant TB, childhood, diagnosis, novel methods

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