

A new ERA for global Dermatology 10 - 15 JUNE 2019 MILAN, ITALY

INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

## MULTIPLEX PCR UTILITY IN THE DIAGNOSIS OF INFECTIOUS GRANULOMATOUS DERMATITIS: A PILOT STUDY

Mukin Kumar<sup>(1)</sup> - Dipankar De<sup>(2)</sup> - Bishan Das Radotra<sup>(3)</sup> - Uma Nahar Saikia<sup>(3)</sup>

Postgraduate Institute Of Medical Education And Research, Pathology, Chandigarh, India<sup>(1)</sup> - Postgraduate Institute Of Medical Education And Research, Dermatology, leprology And Venereology, Chandigarh, India<sup>(2)</sup> - Postgraduate Institute Of Medical Education And Research, Histopathology, Chandigarh, India<sup>(3)</sup>

Introdcution: Tuberculosis (TB) in developing countries is a major public health problem and extrapulmonary tuberculosis (EPTB) accounts for 15-20%. Cutaneous tuberculosis (CTb) is one of most challenging diagnosis with other infectious differentials clinically. The prevalence of CTb is estimated to be around 0.1-0.9% in India and represents about 1.5% of all cases of EPTB.

Material and Methods: A total of 62 cases of infectious granulomatous dermatitis were taken for study retrospectively from the archival. Skin biopsies with clinical suspicion or suggestion of CTB and histopathologically diagnosed cases of granulomatous dermatitis with possible suggested etiology including tuberculosis, leishmaniasis and fungal infections were included in the study. DNA extraction was done by using Qaigen by following manual instruction. PCR was performed on all except 5 cases due to scanty tissue in the block. ITS 1 primer was used as target of panfungal PCR and IS 6110 primer and mpt64 were used as target primers for TB PCR and k DNA as primer target for leishmaniasis.

Results: A total of 62 consecutive cases of infectious granulomatous dermatitis(IGD) excluding Leprosy were analysed. Among 62 included cases of infectious granulomatous dermatitis clinical suspicion of infectious granulomatous dermatitis including TB, fungal and leishmania causes were considered only in 21/62(33.8%) cases. Atypical Mycobacterium tuberculosis was considered in 2/62(3.2%) cases and 18/62(29%) cases had variety of diagnosis.

Conclusion: This is the first pilot study to develop Multiplex PCR using mpt64 for tuberculosis, k DNA for leishmaniasis and ITS 1 and ITS 2 for pan fungal detection was developed for rapid detection of the cause and appropriate management. PCR should be performed on all suspected cases of CTB to establish the diagnosis and rule out fungal and leishmaniasis.





International League of Dermatological Societies Skin Health for the World

