World Academy of Science, Engineering and Technology
International Journal of Medical and Health Sciences
Vol:10, No:02, 2016

A Study of 3 Different Reintroduction Regimens in Anti-Tubercular Therapy-Induced Hepatitis in Extra-Pulmonary Tuberculosis

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Abstract : Background: Tuberculosis is one of the major causes of death in south-east nations. Anti-TB–induced hepatotoxicity (AIH) is associated with a mortality of 6%–12%. The risk is increased when the drugs are combined. Reintroduction of anti-tuberculosis drugs in patients with AIH has never been studied systematically. The present study was planned to see the clinical profile of patients of AIH and the response to reintroduction of therapy. Methods: The trial was conducted in the Department of Medicine, Maulana Azad Medical College and associated Lok Nayak Hospital, on 32 patients with extra-pulmonary tuberculosis who developed AIH. Patients were randomly allocated into 3 groups. In group 1- Isoniazid (INH) and Rifampicin (RIF) were given at full dosages (weight calculated) from day 1. In group 2- RIF was given at maximum dosage from day 1 and INH at maximum dosage from day 8. In group 3- INH was given at maximum dosage from day 1 and RIF at maximum dosage from day 8. Pyrazinamide was added when above regimens were tolerated. Results: The mean age of presentation was 29.37±13.497 years. The incidence was found to be highest in patients with tubercular meningitis (41%) followed by abdominal, pericardial, disseminated, spinal, and lymph nodes. The mean latent period for development of AIH was 7.84 days ± 6.149 days and the median normalization days for LFT's was 8.81 ± 4.22 days (3-21). In the study, 21% patients had recurrence of AIH with majority of patients having tolerated the reintroduction of drugs. Pyrazinamide was introduced after establishing isoniazid and rifampicin safety, thus emphasizing the role of gradual reintroduction of ATT to avoid the combined effects of hepatotoxicity. Conclusion: To conclude, the recurrence rate of hepatotoxicity was not statistically significant between the three groups studied ($p > 0.05$), and thus all 3 hepatotoxic drugs can be reintroduced safely in patients developing AIH.

Keywords : anti-tubercular therapy induced hepatotoxicity, extra-pulmonary tuberculosis, reintroduction regimens, risk factors
Conference Title : ICTT 2016 : International Conference on Tuberculosis Therapy
Conference Location : London, United Kingdom
Conference Dates : February 25-26, 2016