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Topic:

DRUG INDUCED LIVER INJURY (DILI) A POTENTIAL KILLER IN HOSPITALIZED PATIENTS: A STUDY FROM A TERTIARY CARE HOSPITAL IN PAKISTAN

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Abstract:

Background and Aim: In light of the paucity of data on DILI especially from South East Asia, this study aims to evaluate the clinical spectrum and predictors of mortality and morbidity of hospitalized patients with suspected DILI. Methods: 462 cases were identified and categorized on basis of COIMS/RUCAM score¹ and the exclusion of other liver diseases. Ratio (R value) between ALT(Alanine transferase) and AP (alkaline phosphatase) expressed as R>5; hepatocellular, R<2;cholestatic, and R >2 <5;mixed. Clinical and laboratory parameters were analyzed to identify the predictors of hospital mortality and morbidity in terms of prolonged hospital stay (>5 days). Results: Out of 462 patients, there were 264 (57.6%) males with the mean age being 50.83 years (range, 20-94 years). DILI was classified as definite or highly probable in 31.1%, probable in 62.5%, and possible in 7.4% of cases. Pattern of liver injury was hepatocellular in 25.1%, cholestatic in 56.17% and mixed in 18.72% of patients. Mean total bilirubin levels, ALT and AP levels were 5.37mg/dl, 358.65 IU/L and 168.68 IU/L respectively. Antituberculous (ATT) drugs were found to be the most common cause (63.9%) followed by homeopathic or herbal meds (9.5%), antiarrhythmic drugs (8.7%), statins (7.3%), antibiotics (6.1%), antifungals (5.6%), chemotherapeutic agents (4.4%) and antiepileptics (1.7%). Altered mental status was present in 98 (21.6%) of patients while rest presented with abdominal pain, vomiting, jaundice & pruritus; 57.1%, 57.1%, 54.1%, and 42.3% respectively. In-hospital mortality was 26.5% and prolonged hospital stay was observed in 35.93% of patients. On multivariate analysis mortality was significantly greater in patients with altered mental status, male gender, hepatocellular pattern of DILI, increased INR (>1.5) and use of ventilator support. Likewise, prolonged hospital stay was associated with female gender, increased ALT, AST aspartate aminotransferase levels, use of ventilator support and mixed pattern of DILI. 92 (25%) patients received N-Acetylcystiene (NAC); a subgroup analysis was conducted to compare with patients who received supportive care. These patients had high INR values (p0.001), significantly higher number had altered mental status (34.8 vs 17.9; p<0.001) and required ventilator support (29.4 vs 10.9; p<.001). A higher mortality rate was observed in NAC group 38 (41.3%) with prolonged hospital stay in 50 (54.3%). Conclusion: The most frequent cause of DILI was ATT in hospitalized patients in the present study. The common pattern of DILI was found to be cholestatic. More than a quarter of patients died during hospital stay. Hence, awareness among physicians is required while prescribing potentially hepatotoxic agents. 1.livertox.nih.gov