

P28. DRUG INDUCED LIVER INJURY AND BIOMARKERS USED FOR ITS DETERMINATION

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Liver is primary target organ for drug toxicity since it is major organ responsible for the metabolism and detoxification of xenobiotics. Drug induced liver injury (DILI) is a clinical condition that defines liver damage due to drugs, herbal products and food supplements. DILI can cause severe liver damage which may progress to acute liver failure and ultimately can cause serious morbidity and mortality. DILI occurs directly or by idiosyncratic mechanisms. It is a significant impediment to the development of new therapies as the biggest reason for the removal of a drug from the market or assignment black box warning to some drugs. In order to reduce the risk of DILI, it is important to be careful in the prescription of drugs in elderly people and patients having polypharmacy and chronic diseases. Hepatotoxicity can be determined by measuring the serum enzyme activities such as alkaline phosphatase, aspartate amino transferase, alanine amino transferase and determination of total bilirubin concentration. However these biomarkers are not sufficient for the sensitive and specific determination of DILI. More importantly, these biomarkers indicate the present damage and don't inform the future damage. Therefore, it is necessary to develop new biomarkers. Nowadays, molecular proteins such as keratin-18, cytochrome c, glutamate dehydrogenase, high mobility group box-1 proteins, malate dehydrogenase, purine nucleoside phosphorylase, sorbitol dehydrogenase and microRNAs are the most commonly recommended biomarkers. Using new biomarkers as a complement to classic biomarkers will contribute a lot to diagnosis and treatment of DILI.