

[P-15]**Arsenite-induced Hepatotoxicity in Chang Liver and Clone 9 Cells**

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The reactivity and toxicity of arsenic compounds depend on their oxidative states. Exposure to arsenic causes many human health effects, including cardiovascular, hepatic and renal disease, in addition to cancer in kidney, liver, lung, urinary bladder and skin. The cytotoxic effects of arsenite on normal hepatocyte, which most of its biotransformation takes place. Human Chang Liver cells and rat liver Clone 9 cells have been used to understand arsenic-induced hepatotoxicity. Depending on the concentrations of arsenite, the toxic effects of arsenite are different. Cell viability using MTT assay and cytotoxicity using both LDH leakage and liver specific SDH leakage were measured in the concentration of 2.5 μ M, 5 μ M, 10 μ M, 20 μ M, and 40 μ M of arsenite for 24 and 48 hours. And the arsenite-induced apoptosis was detected from 5 μ M to 20 μ M from the result of DAPI staining. But cells in the 40 μ M treatment are under necrotic condition. And GSH content, ROS production, lipid peroxidation, caspase-3 activity and mitochondrial potential are checked using fluorescence microscopy and fluorescence spectroscopy.