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Chowdhury S, Saha D, Paul S. *In vitro* cytotoxic activities of methanolic extract of *Mimosa pudica*. *Bull. Pharm. Res.* 2012;2(1):42-5.

**Abstract:** The present research was conducted to investigate the cytotoxic activities of methanolic extract of plant of *Mimosa pudica*. Cytotoxic activity was evaluated using brine shrimp lethality bioassay. For the determination of cytotoxicity, seven different concentrations (80, 100, 200, 400, 600, 800 and  $1000 \,\mu\text{g/ml}$ ) of methanol extract of *Mimosa pudica* were used. LC<sub>50</sub> value of methanolic extract of *Mimosa pudica* was found to be 2.6621  $\mu\text{g/ml}$ . Methanolic extract of *Mimosa pudica* showed lethality in a dose reliant conduct. More exclusively 0%, 10%, 10%, 30%, 50%, 80% and 100% mortality were observed at the concentration of 80, 100, 200, 400, 600, 800 and 1000  $\mu\text{g/ml}$ , respectively. The brine shrimp lethality bioassay results suggest that the plant can be a promising source of anticancer compounds.

**Key words:** *Mimosa pudica*, Cytotoxicity, Brine shrimp lethality bioassay, Mimosaceae.

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