

Hepatoprotective activity of *Buglossoides purpureocaerulea* (L.) Jhonston extract

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The decoction of *Buglossoides purpureocaerulea* (L.) Jhonston is used in the traditional medicine in some sites of the South Salento for its hepatoprotective properties. In a previous work the decoction was characterized for the phenolic components and the antioxidant activity.

In this work, it was evaluated the hepatoprotective potentials of *B. purpureocaerulea* decoction employing human liver derived HepG2 cells.

Even at the highest concentrations used (16 µg of rosmarinic acid equivalent/ml of medium) the decoction had no toxic effects on HepG2 cells; on the contrary, it promoted the cell growth by increasing the proliferation rate. Data showed that the decoction was able to protect HepG2 cells against H₂O₂ induced cytotoxicity (evaluated by MTT assay) while was ineffective against puromycin or cycloheximide induced apoptosis. In particular, decoction at a concentration of 2 µg/ml significantly reduced the level of cytotoxicity caused by the peroxide. The antioxidant activity on HepG2 cells was probably due to the synergic effect of all components constituting the decoction.

Key word: *Buglossoides purpureocaerulea* , HepG2, MTT assay, cytotoxicity.