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Black cumin Potential Anticancer effect of Black Cumin seed (Nigella sativa L.) extracts as determined by Cytotoxicity test against Larvae of *Artemia salina* Leach using Brine Shrimp Lethality Test (BSLT)

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Abstract: Black cumin plant seed or black seed (*Nigella sativa* L.) is among the most commonly used spices. This plant is grown mostly for its spicy seeds. Studies have reported that black cumin seeds have high levels of antioxidant that correlates with anticancer activities. The current study aims to determine the cytotoxic effect of black seed extracts on brine shrimp larvae (*Artemia salina* Leach) using Brine Shrimp Lethality Test (BSLT). Black cumin seed extract was obtained through percolation method using an extraction solvent (ethanol 96%). The cytotoxicity test was performed at 0 ppm concentration (control) and 10, 50, 100, 250 and 500 ppm concentrations of black seed extracts. We use 10 Brine Shrimp larvae per tube and repeated the test three times for each test group. Our results show that ethanolic extract (90%) of black cumin seeds (*Nigella sativa* L.) has a strong cytotoxic effect on Artemia salina larvae with the LC₅₀ value of 107.2 ppm.

Keywords: Cytotoxic, black cumin seed (*Nigella sativa L.*), *Artemia salina* Leach BSLT.

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