Methanolic extract of Nigella sativa seed inhibits SiHa human cervical cancer cell proliferation through apoptosis. - PubMed

Author information

Abstract

Nigella sativa (NS), also known as black cumin, has long been used in traditional medicine for treating various cancer conditions. In this study, we sought to investigate the potential anti-cancer effects of NS extract using SiHa human cervical cancer cells. NS showed an 88.3% inhibition of proliferation of SiHa human cervical cancer cells at a concentration of 125 microL/mL methanolic extract at 24 h, and an IC50 value 93.2 microL/mL. NS exposure increased the expression of caspase-3, -8 and -9 several-fold. The analysis of apoptosis by Dead End terminal transferase-mediated dUTP-digoxigenin end labeling (TUNEL) assay was used to further confirm that NS induced apoptosis. Thus, NS was concluded to induce apoptosis in SiHa cell through both p53 and caspases activation. NS could potentially be an alternative source of medicine for cervical cancer therapy.