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Silibinin downregulates E-cadherin expression in MKN-45 human gastric cancer cells**Ebrahim Faghihloo**

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Gastric cancer is currently known as one of the most important causes of cancer-driven death, all over the world. In patients with gastric cancer, a significant proportion of deaths occur due to metastasis. On the other hand, down modulated E-cadherin level has been reported as an important contributor to tumor cell invasion and metastasis. In this regard, the present work was aimed to evaluate the impact of silibinin, a flavonolignan with established anti-tumor efficacy, on cell viability and E-cadherin expression in a gastric cancer cell line; MKN-45. To determine cell viability, MTT assay was performed 48 hours after silibinin treatment (at concentrations of 100, 200 and 400 μ M). In addition, quantitative real-time PCR was done following total RNA extraction and cDNA synthesis, to assess E-cadherin level in cells treated with silibinin. The MTT results showed a silibinin concentration-dependent reducing effect on the viability of MKN-45 cells. The findings of quantitative real-time PCR analysis demonstrated upregulated E-cadherin expression in cells treated with silibinin (significantly at concentration of 200 μ M) compared to control cells. The current study suggests that silibinin may exert anti migratory/invasive effects on gastric cancer cells by enhancing E-cadherin expression, which need to be further investigated.

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