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## Epigenetic alterations in glioma

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Epigenetic changes play an important role in the pathogenesis of gliomas and have the potential to become clinically useful biomarkers. The aim of our study was the evaluation of the profile of promoter methylation of RASSF1, MGMT, PTEN and SOCS3 genes based on their expected diagnostic and/or prognostic value. Pyrosequencing (PSQ) was used to assess the methylation status of RASSF1A, MGMT, PTEN and SOCS3 genes in a subset of 40 glioma tumors of different grades. RASSF1A was most frequently methylated ( $p < 0.05$ ), whereas SOCS3 was methylated to a lesser extent. The methylation status of RASSF1 was not correlated with tumor grade of patients. There were no statistically significant differences between the healthy control and patients with respect to promoter methylation levels of MGMT and PTEN. Our results suggested that RASSF1A gene might serve as an epigenetic biomarker in glioma. It also gives us an insight for future glioma medical therapy with a demethylating agent.

## Biography

Berna Demircan has received her PhD Degree from Medical Biochemistry, Ataturk University, Turkey. She has completed her Postdoctoral training in Florida University and New York Columbia University-Cancer Research Center, USA. Her current research interest includes cancer epigenetics, particularly DNA methylation and microRNAs. She has publications and book chapters on her research field. Currently, she has been working as an Associate Professor at Istanbul Medeniyet University in Istanbul, Turkey.

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