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Methylation of the Adenomatous Polyposis Coli (APC) Gene in Cell-free DNA Circulating in Serum of Colorectal Cancer Patients

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SUMMARY. The serum of cancer patients often contains increased free DNA levels, which could potentially offer material for early cancer detection or even information for the development of new therapeutic interventions. Genetic and epigenetic alterations of the *adenomatous polyposis coli* (*APC*) gene are common events in gastrointestinal tumor development. In the present study, we investigated the frequency of aberrant APC promoter methylation in circulating cell-free DNA isolated by colorectal cancer patients (CRC). We detected methylation of APC in 26 of 72 (38%) cases. Methylation was strongly correlated with metastasis. APC methylation analysis appears to be promising as a noninvasive tumor marker in serum DNA of CRC patients.