

Detection of high mobility group A2 specific mRNA in the plasma of patients affected by epithelial ovarian cancer.

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Abstract

Ovarian cancer is the most lethal gynecological malignancy and the high mortality rate is associated with advanced-stage disease at the time of the diagnosis. In order to find new tools to make diagnosis of Epithelial Ovarian Cancer (EOC) at early stages we have analyzed the presence of specific HMGA2 mRNA in the plasma of patients affected by this neoplasm. HMGA2 overexpression represents a feature of several malignancies including ovarian carcinomas. Notably, we detected HMGA2 specific mRNA in the plasma of 40 out 47 patients with EOC, but not in the plasma of healthy donors. All cases found positive for HMGA2 mRNA in the plasma showed HMGA2 protein expression in EOC tissues. Therefore, on the basis of these results, the analysis of circulating HMGA2 specific mRNA might be considered a very promising tool for the early diagnosis of EOC.

KEYWORDS:

HMGA2; circulating RNA; ovarian cancer; plasma