



## P95. DIAGNOSTIC VALUE OF SERUM ANGIOGENESIS MARKERS IN GESTATIONAL TROPHOBLASTIC DISEASE USING MULTIPLEX IMMUNOASSAY

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**Title** Diagnostic Value of Serum Angiogenesis Markers in Gestational Trophoblastic Disease using Multiplex Immunoassay

**Context** Gestational trophoblastic disease (GTD) is a heterogeneous group of pathologies that arise from placental cells. The treatment success is dependent firstly on early diagnosis of the disease and secondly- a well-selected and a well-determined treatment. To determine the accurate treatment therapy is complicated. To less aggressive therapy may cause a drug resistance, although to aggressive therapy may be associated with life-threatening side effects. There is no marker that is useful in the prediction of the disease resistance and in prognosis of treatment changing.

As angiogenesis plays an important role in initiation and progression, as it determines the metastatic potential, drug resistance and poor prognosis in tumors it is of crucial importance to concentrate on angiogenesis biomarkers

**Objective** To estimate the usefulness of angiogenesis multi-marker Bioplex panel in gestational trophoblastic disease patients.

**Methods** Sixteen angiogenetic factors were measured simultaneously using immunoassay Bio-Plex Pro Human Cancer Biomarker Panel

**Patients** The patients enrolled to the study were divided into 2 groups: gestational trophoblastic disease and patients with no pathology arising from the placental villous trophoblast.

**Intervention** Assessment of the level of 16 angiogenetic factors in serum in patients treated because of GTD.

**Main Outcome Measure** The comparison of eleven proteins level before and after the treatment revealed a significant difference. Twelve out of sixteen proteins were characterized as statistically significant in comparison of gestational trophoblastic disease patients with healthy controls.

**Results** The proteins level in gestational trophoblastic disease group was compared before and after the treatment. Levels of eleven markers were significantly decreased ( $p < 0.04$ ) after the chemotherapy. In further analysis angiogenesis profiles of the gestational trophoblastic disease group was compared with healthy controls. Twelve of the proteins were characterized as statistically significant. The comparison revealed simultaneously increased level of ten proteins in disease patients group.

**Conclusion** The results suggest the proteins that BioPlex Pro Human Cancer Biomarker Panel 1

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immunoassay is composed of, could be a potential markers of gestational disease.