

Diagnostic limitations of biochemical evaluation of peritoneal effusions in differentiating malignant and non malignant pathologies

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Abstract Treatment of malignant peritoneal effusions is generally palliative, therefore quality of life issues, as well as the risks and the benefits of the therapeutic options become more critical. Cytomorphological examination alone, provide only limited sensitivity for the detection of metastatic carcinoma cells in many cases of serous effusions. Early diagnosis and management of peritoneal metastases from cancer patients represent new directions of researches. Current study was aimed to differentiate peritoneal liquids encountered in 81 available cases, on various biochemical criteria. The cases were chosen to show both biochemical patterns (benign and malignant) and in this way to achieve a diagnostic value of the biochemical method. A panel of 17 biochemical markers: total proteins (TP), albumin (ALB), lactate dehydrogenase (LDH), total cholesterol (TC), glucose (GL), total lipids (TL), triglycerides (TG), alpha amylase (AA), alkaline phosphatase (ALP), urea (U), total bilirubin (TB), direct bilirubin (DB), aspartate aminotransferase (AST), alanine aminotransferase (ALT), magnesium (Mg), iron (Fe), potassium (K) were determined from the resulted supernatant after centrifugation in blood and peritoneal fluid. It is concluded that a suitably chosen panel, consists of the best specific markers found, can be of great value for initial differentiation and subsequent guidance in the diagnosis.

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