

Usefulness of Ascitic Fluid Cholesterol Measurement in Diagnosis of Malignancy.

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Ascitic fluid studies are fundamental not only for the effective care of the patients but also for establishing a reliable diagnostic test to identify the aetiology of diseases, both benign and malignant. From August 2006 to April 2008, a hospital and laboratory based cross sectional analytical study was conducted at Yangon General Hospital, to find out the diagnostic accuracy of the ascitic fluid cholesterol analysis in diagnosis of malignant ascites. A total sample size of 60 samples of ascitic fluid was involved in this study. For all cases, ascitic fluid cholesterol level was determined by using Bayer Express Plus Auto Analyzer. Cytological investigation was employed as the standard diagnostic tool. The mean value of ascitic fluid cholesterol level of malignant source (2.26 ± 0.48 mmol/l) was statistically higher than the non malignant one (1.24 ± 0.59 mmol/l) (**p value < 0.05**). Moreover, the cutoff point of the ascitic fluid cholesterol level (1.7 mmol/l) was preferred by using Receiver Operating Characteristics Curve (ROC Curve) and the sensitivity, specificity and accuracy of this biochemical parameter to differentiate either benign or malignant diseases were 85.7 %, 87.5 %, 86.6 % respectively. Taking into consideration of the above results, persistent elevation of ascitic fluid cholesterol level above the cutoff value should alarm the suspicion of malignant aetiology. For that reason, the ascitic fluid cholesterol measurement could be applied as a potential indicator of carcinomatosis in clinical practice.