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Title: Diagnostic value of vascular endothelial growth factor, glycosaminoglycan, cathepsin S, cathepsin H in the discrimination of transudate exudate and benign malignant patients with pleural effusion

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Body: Pleural effusion is one of the most common problems and it was reported that 4% of the patients appliying internal clinics suffer from pleural effusion. Cathepsin S, cathepsin H, glycosaminoglycan and vascular endothelial growth factor (VEGF) recently parameters are started to be investigated. In this study, 90 patients, who are diagnosed as pleural effusion, were searched proteine, glycose, pH, albumine, lactate dehydrogenase (LDH), colesterol, triglyceride, C-reactive proteine (CRP), amilase and also diagnostic value of cathepsin S, cathepsin H, glycosaminoglycan and VEGF parameters were investigated for the discrimination of transudate exudate and beningn malignant patients with pleural effusions. PS/S cathepsin S, PS cathepsin H, PS/S cathepsin H, PS VEGF and PS/S VEGF parameters were found statistically significant (p=0.033, p=0.001, p=0.016, p=0.014, p=0.015). S cathepsinS, PS cathepsin H, PS/S cathepsin H, PS VEGF, PS/S VEGF, PS GAG parameters were detected statistically significant between transudate and exudate groups (p=0.037, p=0.008, p=0.009, p<0.001, p<0.001, p=0.016). There is a significant difference between malign and infection groups for PS/S cathepsin S, PS cathepsin H parameters(p=0.028, p=0.020). As a result of our findings, VEGF, cathepsin S and cathepsin H could have a role in forming exsudate fluids especially in malign pleurisy and we concluded that they may be useful in the discrimination of malign benign fluids. It was considered that VEGF, cathepsin S, cathepsin H and GAG could be helpful in the discrimination of transudate exudate.