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Title: The role of serum ischemia modified albumin level for the diagnosis of pulmonary thromboembolism

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Body: Background:In many ischemic situation,it has been shown that serum ischemia modified albumin(IMA) levels were increased.We thought that serum IMA levels may be higher at patients that diagnosed pulmonary thromboembolism(PTE) compared with PTE(-) patients. Methods:After assessing clinical probability scoring and d-dimer results, we included 30 patients that diagnosed PTE by computed tomography pulmonary angiography or ventilation-perfusion lung scan to study group and 36 patients whose diagnoses were PTE(-) to control group.Serum IMA,IMA/albumin(Alb),IMA/total protein(TP),plasma D-dimer and other biochemical parameters were compared between two groups. Results:Serum IMA,IMA/Alb,IMA/TP levels compared between study and control groups weren't statistically significant.Plasma d-dimer and serum uric acid levels of study group were higher which was statistically significant.

Conclusions:According to this study,in patients having PTE symptoms,serum IMA,serum IMA/Alb,serum IMA/TP levels weren't statistically significant between PTE(+) and PTE(-) patients and therefore can't be used in differential diagnosis of PTE. The result of our study may be due to the reasons that; because of bronchial arterial circulation of lung and burden of PTE, there isn't always being a parenchymal ischemia in all PTE cases, or serum albumin and IMA levels can be affected by some circumstances like malignancy, chronic diseases and inflammatory processes.