

Amylase and Lipase; Biochemical Parameters to Early Detection of Lung Disorders

Hein Myo Htet, Tin Tin Thein, Zaw Win Tun, Ye Tun

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Summary

Patient with pleural effusion is needed to investigate for lung malignancy because it is one of the commonest and earliest presenting symptoms of lung cancer. Pleural fluid cytology examination is an important tool for diagnosis but approximately 60% can get diagnosis in initial cytology and repeated aspirations may lead tumour growth along needle track. To reduce such risks, measuring the ratio of pleural fluid amylase to serum amylase and by that of pleural lipase to serum lipase, play for some roles. In this study, total 60 patients with exudative pleural effusions admitted to Chest Medical Unit of Mandalay General Hospital from February 2009 to October 2009, who were undergone cytology and biopsy examinations were also tested for those two biochemical parameters. Twenty seven patients were finally diagnosed as malignant pleural effusions. Among 33 non-malignant pleural effusions, tuberculosis were the commonest and counted for 24 in numbers. Sensitivities, specificities and diagnostic accuracies of both cytology and biopsy were 51.85%, 100.00% and 78.33%, respectively. Those of amylase ratio more than one were 59.26%, 90.91% and 76.67% and of lipase ratio were 7.43%, 90.91% and 53.33%, respectively. Eight out of 27 malignant patients had negative results for both initial cytology and biopsy. Among them, 4 cases had amylase ratio more than one. Although lipase ratio had less sensitivity to detect malignant effusion, amylase ratio more than one should be awareness on malignant possibility even in negative cytology and histology results.