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Vascular Medicine

CLINICAL PREDICTORS RELATED TO DELAYED DIAGNOSIS OF ACUTE AORTIC DISSECTION IN THE EMERGENCY ROOM

Poster Contributions

Poster Hall B1

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Session Title: Predictors and Clinical Management of Aortic Disease

Abstract Category: 45. Vascular Medicine: Non Coronary Arterial Disease

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Background: Initial diagnosis of acute aortic dissection (AAD) in the emergency room(ER) is sometimes delayed even in the modern era. However, factors related to delayed diagnosis (DD) have been poorly defined. The aim of this study is to define clinical predictors related to DD of Stanford type A AAD in ER.

Methods: A retrospective analysis in 127 consecutive patients with type A AAD who directly presented to ER within 12 hours after the onset (age : 69.0±15.4 years, male/female=49/78). Time spent from the visit to ER to the final diagnosis (time to final diagnosis:TFD) was expressed in median, 25 and 75 percentile values. Delayed diagnosis (DD) group was defined as those with TFD longer than 75 percentile. Clinical factors predicting DD (as categorical data) were evaluated in comparison with early diagnosis group (TFD within 75 percentile) using uni-variate and multi-variate analyses. In addition, TFD was compared in each clinical variable with Wilcoxon's rank-sum test.

Results: As a whole, median TFD was 1.5 hours (25/75percentile=0.5/4.0 hours). DD (>4.5 hours) was observed in 27 cases (21.3%). TFD was significantly longer in patients who walked in(WI) to ER without ambulance(median:25/75 percentile=1.0:0.5/2.85 hours for ambulance group vs 3.0:1.0/8.0 hours for WI group, P=0.003). Those without pain, peripheral vascular obstruction, or any complications and those with congestive heart failure or coronary involvement tended to have longer TFD, although statistically not significant. Both uni-variate and multi-variate analyses revealed that WI was the only predictor for DD (odds ratio=3.72, 95% CI=1.39-9.9, P=0.009). Other clinical variables such as past history, symptoms, vital signs, or distribution of complications were not significantly associated with DD.

Conclusion: WI visit to the ER was the only clinical predictor for delayed diagnosis in acute type A AAD in the community hospital.