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The Study of Age and Sex in Midterm Survival of the Patients with Cerebral Venous Sinus Thrombosis

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ABSTRACT

Background and Aim: Cerebral venous sinus thrombosis (CVST) is a rare clinical cause of stroke that can have high incidence in young adults. Most of patients with CVST are discharged with favorable outcome; However, delayed diagnosis of CVST could lead to considerable morbidity and mortality.

Materials and Methods: This retrospective study recruited CVST patients. Patients were identified through ICD-10 coding system with diagnostic codes of G08 for "intracranial and intraspinal phlebitis and thrombophlebitis". All-cause mortality was defined to any cause of death relevant or irrelevant to CVST. Survival curves (Kaplan-Meier) were obtained using data of death as the end point outcome. Cox proportional-hazards regression analysis was used to model the time of death data to identify possible predictors of mortality.

Results: Total of the recruited patients was 301. Mean hospital stay in CVST-related mortality patients was significantly longer than alive patients (P=0.019). Cox proportional hazard model showed that age was considered as a significant risk factor for survival function (HR=1.056, 95%CI: 1.037-1.075). Mortality was significantly higher in >45 age group in comparison to <45 group (HR=4.99, 95%CI: 2.50-9.94, P<0.001). Patients with recurrent CVT had higher risk of mortality in comparison patients without recurrent CVT (HR=9.14, 95%CI:4.70-17.89, P<0.001). In addition, there was statistically higher risk of mortality in patients with DVT (HR=8.97, 95%CI: 4.32-18.61, P<0.001).

Conclusion: In current study, extreme age was determinant of midterm prognosis. Further, this study suggested that if CVST is appropriately diagnosed and treated in early stages and also early mortality is prevented, midterm and probably long-term prognosis is not dismal.