ORIGINAL ARTICLE

Evaluating Serum Beta-2-Microglobulin Levels for Uremic Pericarditis Risk in End-Stage Renal Disease Patients

Jing J. Zhang 1, #, Shui X. Wang 2, #, Lei Zhang 3

#These authors contributed equally to this work

¹ Department of Nephrology, First Affiliated Hospital of Guizhou University of Traditional Chinese Medicine, Guiyang City, Guizhou Province, China

² Department of Nephrology, Huaian Hospital of Huaian City, Huaian City, Jiangsu Province, China

³ Department of Nephrology, No. 987 Hospital Joint Logistic Support Force of PLA, Baoji City, Shaanxi Province, China

SUMMARY

Background: The aim of this study was to investigate the clinical significance of serum β -2-microglobulin (B2M) in predicting the development of uremic pericarditis (UP) in patients with end-stage renal disease (ESRD).

Methods: Three hundred ESRD patients who started hemodialysis and underwent echocardiography were selected. The clinical data of 300 ESRD patients were obtained through the hospital medical record system. Serum B2M levels were measured 24 hours before starting hemodialysis. Risk factors for the occurrence of UP in ESRD patients were analyzed by logistic regression. Predictive value of serum B2M levels for the development of UP in ESRD patients was analyzed by ROC curve.

Results: Twenty-eight out of 300 ESRD patients developed UP. Serum B2M levels were higher in ESRD patients with UP. Higher serum B2M level was a risk factor for UP in ESRD patients. Serum B2M levels had a high predictive value for the development of UP in ESRD patients.

Conclusions: Serum B2M levels have a high predictive value for the development of UP in ESRD patients, and high serum B2M levels are associated with UP risk.

(Clin. Lab. 2025;71:xx-xx. DOI: 10.7754/Clin.Lab.2024.240903)

Correspondence:

Lei Zhang
Department of Nephrology
No. 987 Hospital Joint Logistic Support Force of PLA
No. 45 Dongfeng Road, Jintai District
Baoji City, Shaanxi Province, 721004
China
Email: zhanglei603600@126.com

Clin. Lab. 6/2025

Supplementary Data

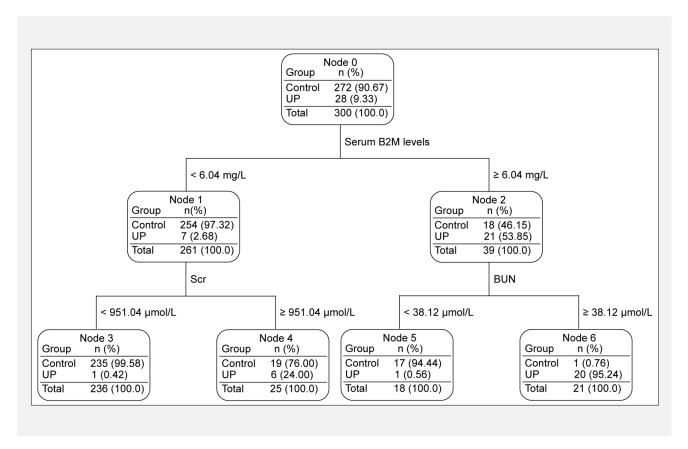


Figure S1. Decision tree.

2 Clin. Lab. 6/2025