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ABSTRACT N. CO10

TEV E PATOLOGIE CARDIOVASCOLARI

MULTIDIMENSIONAL RISK ASSESSMENT OF VENOUS THROMBOEMBOLISM (RISK): AN OBSERVATIONAL STUDY COMPARING THE PADUA PREDICTION SCORE, BARTHEL INDEX, AND QUALITY OF LIFE IN HOSPITALIZED PATIENTS.

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Background: Venous thromboembolism (VTE) is a leading cause of preventable morbidity and mortality in hospitalized medical patients. The Padua Prediction Score (PPS) is a validated tool for assessing thrombotic risk in this population, based primarily on clinical and anamnestic factors. However, it does not incorporate parameters of physical autonomy or quality of life, which may significantly influence VTE risk, especially in frail or polymorbid patients. This observational study investigated the interrelationship between PPS, the Barthel Index (BI), and the Health-Related Quality of Life (HRQoL) evaluated using Short Form-36 (SF-36) health survey in hospitalized patients at high risk for VTE, to develop a more comprehensive, multidimensional risk profile.

Methods: A cross-sectional observational study was conducted on patients admitted to an internal medicine ward. PPS was calculated on admission. Functional status was assessed using the BI, and the SF-36 questionnaire. Correlation analyses and multivariate logistic regression were performed to determine associations between PPS and functional/quality of life measures.

Results: : One hundred patients consecutively hospitalized in our medical wards were evaluated for the study The mean age of participants was 70,12 years (SD 15,5) and 57% were males. Based on the PPS 51 patients (51%) were classified as high risk for VTE (PPS>4). A BI score <60, indicating significant functional dependency, was observed in 13 patients (13%).

A detailed comparison of the BI and HRQoL components between patients with a PPS greater than 4 and those with a PPS less than 4 revealed a significant difference in the physical role domain (scores of 4 vs 5, $p < 0.01$). However, the domains of physical functioning, body pain, general health, and the mental component did not show statistically significant differences. Additionally, patients with a PPS less than 4 had a significantly lower BI score ($p = 0.01$). A significant negative correlation was found between the PPS and the BI ($r = -0.37$, $p < 0.0001$), as well as between the PPS and the SF-36 ($r = -0.50$, $p < 0.0001$). This suggests that an increased risk of thrombosis is associated with lower functional performance and poorer physical health.

In examining the relationship between the individual variables of PPS, BI, and HRQoL, it was found that lower BI scores were significantly linked to an increased likelihood of several thrombotic risk conditions. Patients with reduced motility had an odds ratio (OR) of 0.29 (95% CI: 0.12-0.7), while those with heart and respiratory failure had an OR of 0.39 (95% CI: 0.1-1, p=0.05). Additionally, patients with obesity also displayed a markedly lower functional status, with an OR of 0.39 (95% CI: 0.12-1, p=0.05). Elderly age was associated with impaired functional performance, with an OR of 0.16 (95% CI: 0.06-0.45, p=0.0005). In terms of HRQoL domains, individuals with lower scores in physical functioning and vitality had a significantly higher likelihood of experiencing acute infections, rheumatic diseases (OR=0.22; 95% CI: 0.08-0.58), and obesity.

Conclusions A higher thrombotic risk, as defined by PPS, is associated with poorer physical function and HRQoL. These findings suggest that integrating functional and psychometric evaluations could enhance VTE risk stratification and patient management strategies in internal medicine settings.

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