Synopsis of Original Research Paper

Risk scoring tool for forearm skin tears in Japanese older adults: A prospective cohort study

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Aim: Because painful skin tears frequently occur in older patients, the prevention of skin tears is fundamental to improve their quality of life. However, a risk assessment tool for skin tears has not been established yet in Japan. Therefore, we aimed to propose a risk scoring tool for skin tears in Japanese older adult.

Methods: We conducted a prospective cohort study with 6-month follow-up in two long-term care hospitals in Japan. A total of 257 inpatients were recruited. Patient and skin characteristics were collected at baseline, and the occurrence of forearm skin tears were examined during follow-up. To develop a risk scoring tool, we identified risk factors, and converted their coefficients estimated in the multiple logistic regression analysis into simplified scores. The predictive accuracy of the total score was evaluated.

Results: Of 244 participants, 29 developed forearm skin tears during the follow-up period, a cumulative incidence of 13.5%. Senile purpura, pseudoscar, contracture, and dry skin were identified as risk factors for skin tears. Their weighted scores were 6, 4, 5, and 6, respectively. The area under the receiver operating characteristic curve of the total score was 0.806. At a cut-off score of 12, the sensitivity was 0.86, and the specificity was 0.67.
Conclusion: Our forearm skin tear risk scoring tool showed high accuracy, whereas specificity was low. This tool can contribute to prevent forearm skin tears in Japanese older adults.