Validation of Sinhala Version of Psoriasis Epidemiology Screening Tool

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Psoriatic arthritis (PsA) occurs in one third of patients with psoriasis and mostly remains undetected leading to debilitating deforming arthritis, eventually. The Psoriasis Epidemiology Screening Tool (PEST) consists of five items and a mannequin for patients to mark the joints that cause pain and discomfort and score ranges from 0-5. It is a quick and valid tool, widely used to detect PsA in clinical practice and has been validated to many languages. In this study, we intended to assess the psychometric properties of Sinhala version of the PEST (PEST_sv). The PEST_sv was formulated according to the process of cross-cultural adaptation described by Beaton, et al. It was tested on 199 psoriatic patients attending the dermatology clinic at a tertiary care National Hospital in Sri Lanka. Patients who were detected to have PsA previously and those with other rheumatologic conditions were excluded. Demographic data, disease characteristics as well as Dermatology Life Quality Index (DLQI) were obtained. All patients were examined by a dermatologist to determine the psoriasis area and Psoriasis Area Severity Index (PASI) score. All patients were assessed by two rheumatologists who were blinded to the answers provided in the PEST_sv questionnaire and the diagnosis of PsA was made based on CASPAR criteria. We observed that the total PEST score of 3 or more was the best cut-off value to screen for PsA. This cut-off value showed the highest Youden index (sensitivity = 0.89, specificity = 0.95). In the ROC analysis, the area under the curve of the PEST_sv was 0.95 (SE 0.02, $p < 0.001$). PEST_sv total score showed a significant correlation with body surface area involved but not with DLQI or PASI score. The Sinhala version of PEST demonstrated satisfactory performance as a screening tool for detecting PsA.

Keywords: Psoriatic arthritis, Psoriasis, PEST, Validation study