Included in the theme issue:
INFLAMMATORY SKIN DISEASES
Acta Derm Venereol 2012; 92: 339–409

Patients' Visual Analogue Scale: A Useful Method for Assessing Psoriasis Severity

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Accepted July 13, 2011.

The quality of life of patients with psoriasis can be severely diminished. The disease often affects life at a physical, social and emotional level (1). In clinical studies, a wide variety of assessment tools is used to evaluate the severity of psoriasis, but there is a lack of standardization (2). The introduction of quality of life (QoL) instruments has improved psoriasis evaluation, but there is a need for consensus in order to make valid comparisons between studies (3). The Psoriasis Area and Severity Index (PASI) is the most commonly used method to describe severity of psoriasis, and the Dermatology Life Quality Index (DLQI) is the most common method for measuring QoL in randomized controlled trials (4). The visual analogue scale (VAS) is an often-used tool to measure subjective phenomena, which has shown good reliability and validity in terms of assessment of pain (5).

The aim of this study was to compare the simple VAS instrument with the most-used instruments for measuring psoriasis severity and QoL.

PATIENTS AND METHODS

Data from 68 patients with moderate-to-severe plaque psoriasis who participated in a 12-week randomized controlled trial comparing methotrexate and cyclosporin treatment effectiveness, QoL and side-effects, were used (6).

The PASI and patient VAS were used at baseline and at monthly intervals thereafter and the DLQI was used at baseline and after 8 and 12 weeks. The PASI was performed by blinded experienced assessors who had participated in a training course in assessment of the PASI prior to the study. The 100-mm VAS (ranging from zero (no complaints) to 100 (worst complaints)) was used for patients' assessment of psoriasis activity at each visit. The statistical method used was the Spearman's rank correlation coefficient test, non-parametric statistics.

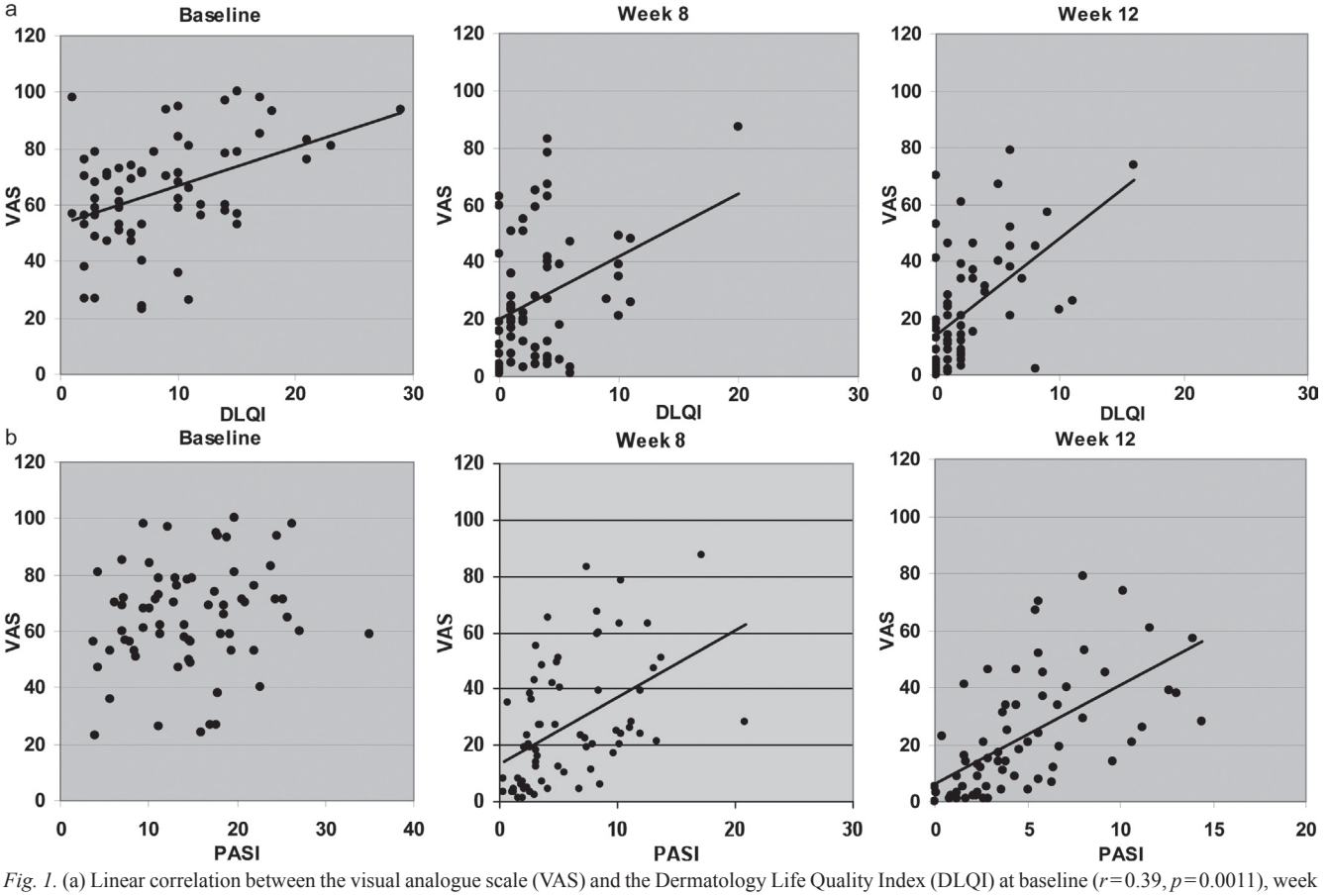

Fig. 1. (a) Linear correlation between the visual analogue scale (VAS) and the Dermatology Life Quality Index (DLQI) at baseline ($r=0.39$, $p=0.0011$), week 8 ($r=0.31$, $p=0.0111$) and week 12 (r=0.55, $p<0.0001$). (b) Linear correlation between the VAS and the Psoriasis Area and Severity Index (PASI) at baseline ($r=0.18$, $p=0.1310$), week 4 ($r=0.40$,$p=0.0007$; not shown in figure), week 8 ($r=0.57$, $p<0.0001$) and week 12 ($r=0.69$, $p<0.0001$).

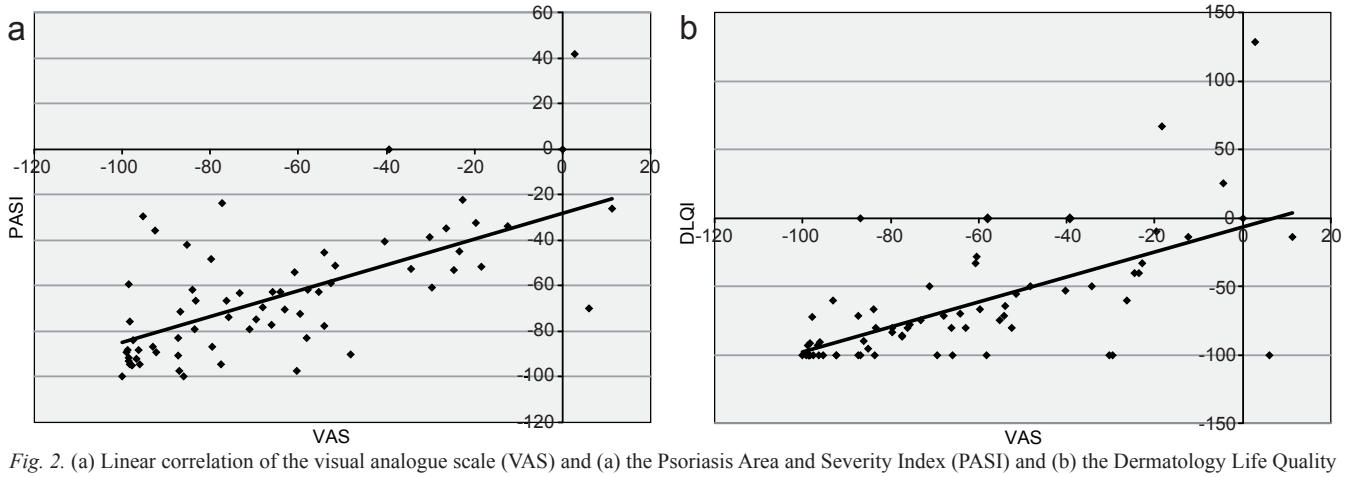

Fig. 2. (a) Linear correlation of the visual analogue scale (VAS) and (a) the Psoriasis Area and Severity Index (PASI) and (b) the Dermatology Life Quality Index (DLQI) at week 12 expressed as a percentage change from baseline (a: $r=0.64$, b: $r=0.65$, $p<0.0001$).

RESULTS AND DISCUSSION

There was a significant but modest correlation between the VAS and the DLQI at each visit (Fig. 1a), and also between the VAS and the PASI except at the baseline visit (Fig. 1b). A possible explanation for the lack of correlation at the baseline visit could be that some patients with lower PASI scores might still experience a major impact on QoL. Correlation, expressed as a percentage change from baseline to week 12, was found between the VAS and the PASI (Fig. 2a) and between the VAS and the DLQI (Fig. 2b). We suggest the VAS instrument should be used as a complement to the PASI and DLQI or as a single tool for assessing disease activity and QoL. The main advantage is that it takes only a few seconds to obtain a score, and imposes no inconvenience (7). One negative aspect might be the need for abstract thinking, which can make it difficult to understand and complete for some patient groups (8). Although further studies are needed to examine test-retest reliability and validity of the VAS in psoriasis assessment, we suggest that the VAS could be used for all psoriasis patients in everyday clinical practice.

The authors declare no conflict of interest.

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