

## Assessment and determinants of aesthetic discomfort in hand osteoarthritis

The objectives of the present study are to assess the magnitude and the determinants of aesthetic discomfort in hand osteoarthritis (HOA)<sup>1–2</sup> in 203 consecutive outpatients attending a tertiary care centre (University Hospital) specialised in bone and cartilage metabolism and diagnosed with HOA.<sup>3</sup> All distal and proximal interphalangeal joints and thumb base were assessed for painful and tender joints and presence of nodes. A total of 90.1% of the subjects were women. Patient's global assessment of pain used a 100 mm (0–100) Visual Analog Scale (VAS). The patients rated their aesthetic discomfort related to HOA on a 100 mm VAS (0–100) and on a Likert scale (0–7) used for the assessment of aesthetic damage in Forensic (ie, medicolegal assessment) medicine (ranging from 0=no damage to 7=very important damage). Pain, stiffness and function were assessed using Australian Canadian Osteoarthritis Hand Index (AUSCAN). Functional disability was measured using Functional Index for HOA. Health-related quality of life (HRQoL) was assessed by the Short Form 12 and by EuroQoL. Psychological status was measured by Hospital Anxiety and Depression scale. Radiographs were assessed following Verbruggen and Veys<sup>4</sup> and Kellgren and Lawrence.<sup>5</sup> We assessed the presence of erosive osteoarthritis (OA) (ie, at least one joint at the erosive or remodelled phase,<sup>4</sup> and the number of severely affected joints).<sup>5</sup> Quantitative variables were expressed by median and IQR (Q1–Q3) due to skewed distributions. Qualitative variables were expressed by number and percentage. In the univariate analysis, association between aesthetic discomfort (VAS), or the magnitude of the aesthetic damage (medicolegal scale), and qualitative parameters was assessed by means of a Student's t test or Kruskal–Wallis test, while correlations with quantitative parameters were tested using Pearson or Spearman rank correlation. All parameters with  $p < 0.25$  in the univariate analysis were combined into a multiple regression with stepwise procedure to account for potential confounders. Results were considered statistically significant at the 5% level ( $p < 0.05$ ).

The median age of the population was 69.1 years (Q1: 61.9–Q3: 75.6). A total of 6.9%, 40.4%, 22.2% and 30.5% of the subjects reported a duration since the onset of symptoms of HOA of <1, 1 to 5, 6 to 10 and >10 years, respectively. The median score of hand pain at rest on a 100 mm VAS was 50.0 (29.0–59.0). The median number of painful joints at rest and at pressure was 1.0 (0.0–4.0) and 5.0 (2.0–10.0), respectively. Eighty-seven (42.9%) subjects presented with erosive HOA.

The median value of the aesthetic discomfort on the 100 mm VAS was 35.0 (6.0–59.0). On the medicolegal scale, the median damage was rated at 3.0 (1.0–4.0) corresponding to a 'moderate' level. After a stepwise analysis, the parameters correlated to the aesthetic discomfort and damage were the number of joints with severe HOA, the AUSCAN score, the female gender, the presence of erosive HOA and the duration of OA. In conclusion, the aesthetic discomfort reflects a significant concern for patients with HOA. The association of erosive HOA and increased aesthetic

discomfort is in close agreement with several publications showing that the subset of patients developing erosive HOA usually face a higher clinical burden.<sup>6–8</sup> It should be noted that erosive OA is over-represented in our population, maybe a consequence of the process of recruitment. This should be considered when extrapolating our results to the general HOA population.

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