



Pain and Anxiety are Independent Factors Associated to Sleep Impairment in Psoriatic Arthritis: a Multicentric Study in 14 Countries

Penélope Esther Palominos (Serviço de Reumatologia, Hospital de Clínicas de Porto Alegre, Porto Alegre, RS, Brasil), Laura C Coates (Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, Grã-Bretanha (Reino Unido)), Charles Lubianca Kohem (Serviço de Reumatologia, Hospital de Clínicas de Porto Alegre, Porto Alegre, RS, Brasil), Ana-Maria Orbai (Division of Rheumatology, Johns Hopkins University School of Medicine, Baltimore, Maryland, Estados Unidos), Josef S Smolen (Division of Rheumatology, Department of Medicine 3, Medical University of Vienna, Vienna, Áustria), Maarten de Wit (Department of Medical Humanities, Amsterdam Public Health (APH), Amsterdam University Medical Centre, Amsterdam, Holanda), Uta Kiltz (Rheumazentrum Ruhrgebiet, Herne and Ruhr-Universität, Bochum, Alemanha), Ying Ying Leung (Department of Rheumatology and Immunology, Singapore General Hospital, Singapore, Cingapura), Juan D Cañete (Rheumatology Department, Hospital Clínic and IDIBAPS, Barcelona, Espanha), Rossana Scrivo (Rheumatology Unit, Department of Internal Medicine and Medical Specialties, Sapienza Università di Roma, Rome, Itália), Andra Balanescu (Sf Maria Hospital, University of Medicine and Pharmacy Carol Davila, Bucharest, Romênia), Emmanuelle Dernis (Rheumatology Department, Le Mans Central Hospital, Le Mans, França), Sandra Tälli (Rheumatology Department, East-Tallinn Central Hospital, Tallinn, Estônia), Martin Soubrier (Rheumatology Department, Gabriel Montpied Hospital, Clermont-Ferrand, França), Sibel Zehra Aydin (University of Ottawa, The Ottawa Hospital Research Institute, Ottawa, Canadá), Inna Gaydukova (Rheumatology Department, North-Western State Medical University, St Petersburg, Federação Russa), Umut Kalyoncu (Division of Rheumatology, Department of Internal Medicine, Hacettepe University Faculty of Medicine, Ankara, Turquia), Laure Gossec (Sorbonne Université and Pitié Salpêtrière Hospital, Paris, França)

BACKGROUND

Sleep quality is diminished in patients with psoriatic arthritis (PsA) and close to 40% of PsA patients consider sleep impairment a priority domain. This work analyzed determinants of impaired sleep in patients with PsA.

MATERIALS AND METHODS

This was a cross-sectional analysis of an observational study (ReFlap, NCT03119805), which included adult patients with definite PsA with ≥ 2 years disease duration from 14 countries. Sleep was assessed using the patient self-reported evaluation of sleep on a 0-10 numerical scale, included in the Psoriatic Arthritis Impact of Disease questionnaire (PSAID-12). A score ≥ 4 was considered as sleep impairment. Demographic and clinical variables associated to sleep impairment were assessed through univariate analysis; prevalence ratios (PR)[95% CI] were reported. Variables independently associated to sleep impairment in the univariate analysis (with p-value <0.05) were entered in the Poisson regression model.

RESULTS

A total of 396 patients were analyzed: mean age 51.9 ± 12.6 , 51% (N= 202) were females, 59.7% were receiving biologic therapy (N= 221), 53.3% (N=201) of participants had 1-5% of body surface area (BSA) affected by psoriasis, 74% (N=293) had mild disability (defined as a score ≤ 1 in the Health Assessment Questionnaire-HAQ); 23.7% (N=94) were in remission and 36.9% (N=146) in low disease activity according to the Disease Activity in Psoriatic Arthritis (DAPSA) score. Median (25th-75th) patient's self-evaluation of sleep difficulties was 2 (0-6), 39.9% (N=158) were considered as having sleep impairment. In the univariate analysis, factors independently associated to sleep impairment were: moderate (HAQ >1 to 2) and severe (HAQ >2 to 3) disability (PR: 1.55 [1.39-1.72] and 2.07 [1.97-2.18] respectively, $p<0.001$), glucocorticoid

use (PR: 1.52 [1.16-1.99], $p=0.003$), obesity (PR: 1.50 [1.06-2.11], $p=0.021$), psoriasis affecting >20% of BSA (PR: 1.12 [1.08-1.17], $p<0.001$), moderate and high disease activity by DAPSA (PR: 7.01 [3.54-13.8] and 8.71 [4.46-17.9] respectively, $p<0.001$) and self-reported levels of anxiety, depression and fatigue (PR: 1.22 [1.18-1.28], 1.16 [1.14-1.21] and 1.28 [1.23-1.33] respectively, $p<0.001$). Poisson regression model showed only self-reported levels of anxiety (PR: 1.05 [1.02-1.08], $p=0.003$) and the pain component of DAPSA (PR: 1.06 [1.01-1.09], $p<0.001$) contributing to sleep impairment .

CONCLUSION

Sleep impairment was frequent in this population of PsA patients; pain and anxiety were independently associated to sleep impairment.