Association Between Mental Health Disorders and Sexual Dysfunction in Patients Suffering from Rheumatic Diseases

Panagiota Anyfanti, MD,* Athina Pyrpasopoulou, MD,† Areti Triantafyllou, MD,‡
Georgios Triantafyllou, MD,‡ Eleni Gavriilaki, MD,‡ Sofia Chatzimichailidou, MD,†
Eugenia Gkaliagkousi, MD,* Konstantinos Petidis, MD,* Spyros Aslanidis, MD,† and Stella Douma, MD‡

*2nd Propedeutic Department of Internal Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece; †Department of Rheumatology, 2nd Propedeutic Department of Internal Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece; ‡3rd Department of Internal Medicine, Papageorgiou Hospital, Aristotle University of Thessaloniki, Thessaloniki, Greece

DOI: 10.1111/jsm.12672

ABSTRACT

Introduction. Sexual functioning may be notoriously affected in patients suffering from rheumatic diseases, yet the extent to which physical and/or psychological factors contribute to sexual dysfunction in this particular group of patients remains underinvestigated.

Aim. This cross-sectional study aimed at investigating whether an association exists between psychological status (anxiety, depression) and sexual dysfunction, independently of other physical factors, in patients with rheumatic disorders.

Methods. A total of 509 consecutive rheumatologic patients, aged 54.7 ± 14.2 years, 423 female and 86 male, were studied. Female and male sexual function was evaluated with the Female Sexual Dysfunction Index (FSFI) and the International Index of Erectile Function (IIEF) questionnaire, respectively. The Hamilton Anxiety Scale and the Zung Self-Rating Depression Scale were used to detect presence of anxiety and depression, respectively.

Main Outcome Measures. Sexual dysfunction affected 69.9%, anxiety 37.5%, and depression 22% of our patients.

Results. A strong and negative correlation was found between anxiety and both FSFI ($r = -0.169$, $P < 0.001$) and IIEF score ($r = -0.304$, $P = 0.004$). Similarly, depressive symptomatology was strongly and negatively correlated with both FSFI ($r = -0.178$, $P < 0.001$) and IIEF score ($r = -0.222$, $P = 0.04$). In the logistic regression analysis, apart from increasing age and female sex, depression ($P = 0.027$) and anxiety ($P = 0.049$) were identified as the only predictors of sexual dysfunction, even after adjustment for a variety of physical factors.

Conclusions. Mental distress and sexual dysfunction are extremely common in rheumatologic patients. Sexual dysfunction is significantly associated with anxiety and depression in both men and women and may be independently predicted by their presence in this group of patients. Physicians dealing with rheumatologic patients should be aware of these results and incorporate screening and treatment of the above comorbidities in the global assessment of their patients, in order to alleviate the disease-emerging mental and physical burden and improve their quality of life. **Anyfanti P, Pyrpasopoulou A, Triantafyllou A, Triantafyllou G, Gavriilaki E, Chatzimichailidou S, Gkaliagkousi E, Petidis K, Aslanidis S, and Douma S. Association between mental health disorders and sexual dysfunction in patients suffering from rheumatic diseases. J Sex Med 2014;11:2653–2660.**

Key Words. Sexual Dysfunction; Anxiety; Depression; Rheumatic Disease

Introduction

Rheumatic diseases comprise a heterogenous group of more than 150 different autoimmune and chronic degenerative disorders, with inflammation, pain and physical disability being the common denominators [1]. Rheumatic diseases are ranked among the most prevalent chronic

conditions globally. Musculoskeletal problems and conditions are a leading cause of health care utilization [2], but notably, these patients commonly seek consultation not only for their clinical manifestations, but also for a variety of disease-related comorbidities including psychological ramifications [3]. Indeed, a significantly higher prevalence of mental health disorders has been consistently demonstrated in rheumatologic patients compared with the general population. Serious psychological distress and frequent anxiety or depression affect 31.8% of U.S. adults with arthritis, which is about 2.5 times higher than arthritis-free population (12.5%) [4]. We recently showed that both depression and anxiety are present in 21.8% and 30.8%, respectively, and significantly correlate with quality of life in a large cohort of patients suffering from rheumatic diseases [5].

Psychological aspects of rheumatic diseases have gained growing recognition over the past decades, but it is not until recently that attention has been drawn towards a neglected area of physical activity potentially impaired by rheumatic disease, namely sexual functioning. The World Health Organization defines sexual health as a state of physical, emotional, mental, and social well-being related to sexuality; as such, sexual dysfunction notoriously affects human's general health and well-being. Erectile dysfunction is defined as the persistent inability to attain and/or maintain penile erection sufficient for sexual intercourse [6], while female sexual dysfunction is described as persistent or recurrent decrease in sexual desire or in sexual arousal, or the difficulty or the inability to achieve an orgasm, or the feeling of pain during sexual intercourse [7]. Although not definite, prevalence of erectile dysfunction in the general population is estimated between 15% and 20% [8,9], and an even higher prevalence of female sexual dysfunction has been testified (43% vs. 31% in the United States in 1999) [10]. Epidemiological data show that sexual functioning is severely impaired in the ground of rheumatic disease. We have previously shown that sexual dysfunction affects 48.1% of male and 73.5% of female patients suffering from rheumatic disorders [11], demonstrating the detrimental effects of rheumatic diseases on sexual health and well-being.

In the general population, predisposing factors for sexual dysfunction can be divided in two main categories: physiological, which is represented by the traditional cardiovascular risk factors (age, hypertension, dyslipidemia, obesity, smoking, diabetes mellitus, history of cardiovascular disease) [8], and psychological (anxiety, depression) [12]. However, not only organic and psychological determinants, but also the relational domain could play a role in the pathogenesis of couple sexual dysfunction [13]. The three-dimensional component of sexual dysfunction (organic, psychological, relational) has been incorporated in relevant tools for the identification of patients with erectile dysfunction of a strong intrapsychic correlate [14].

We were the first to examine the effect of the first group of predictors specifically in the group of rheumatologic patients, and we interestingly found that sexual dysfunction was not related (with the only exception of age) to any of the traditional cardiovascular risk factors acknowledged as contributors to sexual dysfunction in the general population [11]. Since chronic, widespread musculoskeletal pain has been associated with several aspects of sexual functioning, emphasis should be placed on the disease-related and psychological parameters interfering with sexual dysfunction in this particular group of patients [15]. Although mental health disorders have been proposed as predictors of sexual dysfunction in patients suffering from musculoskeletal disorders, evidence is limited and not uniform, and there is still lack of large studies showing a firm association between psychological factors and sexual dysfunction in rheumatic disease. The aim of our study was, therefore, to investigate the relevance of psychological parameters (anxiety, depression) with sexual dysfunction in patients with rheumatic disorders.

Materials and Methods

Consecutive patients who attended the Rheumatology Outpatient Clinic in our hospital over a 6-month period comprised the study population. The study was conducted in accordance with the principles of the Helsinki declaration, and approval by the Hospital Ethics Committee was obtained before the onset of the procedures. Written informed consent was obtained from all included subjects. Criteria for inclusion in the study were age 18 years and older, an established diagnosis of a rheumatologic disease, and sufficient knowledge of the Greek language in order to complete a self-reported questionnaire. Conditions potentially confounding with sexual dysfunction—specifically, genital tract abnormalities (prostatectomy, previous hysterectomy or vaginal surgery), endocrine disease (uncontrolled thyroid function), or urologic disease (urogenital infections)—