

Sexuality of Women with Rheumatoid Arthritis in a West African Hospital

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Abstract

Background: Rheumatoid arthritis is a chronic autoimmune disease that causes socio-economic, psychological and sexual problems. It imposes limitations on sexual relationships and these issues are still taboo in African society.

Objective: The objective is to assess the impact of rheumatoid arthritis (RA) on women's sexuality at the Ignace Deen National Hospital.

Patients and Methods: This was an analytic case-control study of 8 months (from April 6, 2020 to December 11, 2020). All patients followed for rheumatoid arthritis diagnosed according to 2010 ACR/EULAR criteria for RA had been included.

Results: One hundred and five women (52 RA patients and 53 controls) were collected. The two groups were comparable in terms of demographic characteristics. Sexual dysfunction was found in 69.2% of cases versus 35.8% of controls. Women with RA had poorer sexual functioning in the categories of desire, arousal, lubrication, orgasm, satisfaction, and pain of the FSFI score compared to healthy women ($p = 0.01$; $p = 0.7$; $p = 0.3$; $p = 0.8$; $p = 0.1$; and $p = 0.3$ respectively). Patients were 4 times more likely to have sexual dysfunction than healthy individuals and this result was statistically significant with a p-value less than 0.05. **Conclusion:** Sexual dysfunction was noted in a large number of RA patients surveyed at the rheumatology department of the Ignace Deen national hospital. A larger study is needed to better assess this issue and seek management solutions.

Keywords

Rheumatoid Arthritis, Sexuality, FSFI, Guinea

1. Introduction

Rheumatoid arthritis (RA) is a chronic and progressive autoimmune disease

characterized by inflammation responsible for joint destruction, leading to functional disability and chronic pain [1]. RA causes socio-economic, psychological and sexual problems. Sexual problems are common, but also taboo, especially in African societies [2]. RA imposes limitations on sexual intercourse impacting sexual desire [3], and the main reasons cited are fatigue and pain [4]. This leads to a decrease in frequency of sexual intercourse [5]. In Sweden, decreased sexual desire was found in 62% of women with rheumatoid arthritis [3]. In 2019 in Tunisia, Alia F *et al.* reported a decrease in sexual frequency in 59% of women after diagnosis of RA [5]. In Senegal, 23.8% of RA patients had a co-wife since the beginning of the disease course [6]. Several Guinean studies have dealt with RA without addressing the sexual dimension [7] [8] [9] [10]. The objective of this study was to assess the impact of RA on women's sexuality at the Ignace Deen national hospital in Conakry (Guinea).

2. Patients and Methods

This was an analytical case-control study lasting 8 months (from April 6, 2020 to December 11, 2020) in the rheumatology department of the Ignace Deen national hospital in Conakry (Guinea). Patients followed for rheumatoid arthritis diagnosed according to the ACR/EULAR 2010 criteria [11] were included. We recruited all consenting patients, meeting the selection criteria. Controls were female volunteers in apparent good health, of the same age range as the cases. They were recruited among the patients' companions. One case (women with RA) was age-matched to a control (volunteer woman in apparent good health). Not included in the study were:

- Patients with gynecological disease.
- Patients whose partner has suffered from a urological disease.
- Patients with neurological or psychiatric illness.
- Patients on medication that may affect sexual function (antidepressants, neuroleptics).
- Patients diagnosed with secondary Sjögren's syndrome.
- For each patient, the following data were collected:
- Qualitative data: employment status, marital status, presence of a co-wife, education level.
- Quantitative data: age, RA duration, morning stiffness, number of swollen joints, number of tender joints, number of ankylosed joints, Disease Activity Score 28 (DAS28) which assesses the activity of rheumatoid arthritis in 28 joints. RA is considered in remission if $DAS\ 28 \leq 2.6$, low active if $2.6 < DAS\ 28 \leq 3.2$, moderately active if $3.2 < DAS\ 28 \leq 5.1$ and highly active if $DAS\ 28 > 5.1$. The Visual analogue scale (VAS) assesses the intensity of the patient's pain on a scale of 0 (no pain) to 10 (unbearable pain). The Health Assessment Questionnaire (HAQ) which assesses the functional impact of RA on the patients' quality of life. The score varies from 0 (patient maintains activities without difficulty) to 3 (patients unable to do activities). The Female Sexual Function Index (FSFI) score which assesses sexual function in women.

FSFI consists of 19 questions divided into six subscales measuring different aspects of female sexual function. These aspects are desire (Q1 - Q2), arousal (Q3 - Q6), lubrication (Q7 - Q10), orgasm (Q11 - Q13), satisfaction (Q14 - Q16) and pain (Q17 - Q19). When FSFI is less than or equal to 26.55, there is sexual dysfunction [12] [13]. The short form of the FSFI was used. This version was based on existing FSFI items (desire, arousal, lubrication, orgasm, satisfaction and pain). A total score of 19 is diagnostic of sexual dysfunction, with a maximum score of 30 [14].

2.1. Data Analysis

The results were analysed using Microsoft Excel 2019 and Epi Info 7.2.3.1. Qualitative variables were summarised by frequency and percentage, and quantitative variables by mean and standard deviation (SD). Comparisons were made by using the Pearson correlation test. All tests were two-tailed; the significance level was set at 5%.

2.2. Ethical Considerations

Informed consent was obtained from the patients and the research protocol was accepted by the ethics committee of the Ignace Deen national hospital in Conakry.

3. Results

One hundred and five women were registered (53 cases and 53 controls). The mean age of the patients was 43.3 ± 13.4 (Range: 18 years and 73 years). There was a predominance of married patients (71.2%) with an average duration of marriage of 18.6 ± 11.3 years. They had a co-wife in 54.1% of cases. RA patients were employed in 57.7% of cases (**Table 1**).

The RA average duration was 6.7 ± 6.2 years. The mean DAS 28 at the time of evaluation was 4 ± 1.6 (**Table 2**).

Cases had significant sexual dysfunction ($p = 0.00006$). The scores used found that 36 patients (69.2%) and 19 controls (35.8%) had a sexual dysfunction. All dimensions of sexuality were affected. The lower the mean scores, the more the domain were impacted. Desire, arousal, lubrication, orgasm, satisfaction and pain were all lowered in RA patients than in controls. The most affected part was desire, which was correlated with RA with a p-value of 0.01 (**Table 3**).

Thirty-seven patients under 50 years had a sexual dysfunction (45.7%) compared to 19 over 50 years. Sexual dysfunction was correlated with patient age with a p-value < 0.05 ($p = 0.0039$). The limitation of patients' quality life, calculated by the HAQ score was not significantly associated with the occurrence of sexual dysfunction ($p = 0.376$) (**Table 4**).

4. Discussion

This was a case-control study to investigate the sexuality of women with rheumatoid arthritis in the rheumatology department of the Ignace Deen national

Table 1. Socio-demographic characteristics of rheumatoid arthritis patients and controls.

	Cases n (%)	Controls n (%)
Age (mean \pm standard deviation)	43.3 \pm 13.4	36 \pm 13
Marital status		
Single	7 (13.5)	21 (39.6)
Divorced	2 (3.8)	2 (3.8)
Married	37 (71.2)	27 (50.9)
Widowed	6 (11.5)	3 (5.7)
Duration of marriage	18.6 \pm 11.3	17.5 \pm 12.7
Co-wife		
Yes	20 (54.1)	10 (37)
No	17 (45.9)	17 (63)
Educational stage		
Illiterate-Primary	16 (30.8)	8 (15.1)
Secondary-Higher	36 (69.2)	45 (84.9)
Professional status		
Employee	30 (57.7)	26 (49.1)
Unemployed	22 (42.3)	27 (50.9)

Table 2. Clinical characteristics of the 52 patients with RA.

	n (%)	Mean \pm SD
RA duration (years)		6.7 \pm 6.2
Age of onset (years)		35.9 \pm 13.9
Morning stiffness		23.6 \pm 21.7
<30 min	26 (55.3)	
\geq 30 min	21 (44.7)	
Ankylosed joints		1 \pm 2
Tender joints		7 \pm 9
Swollen joints		2 \pm 3
DAS28		4.0 \pm 1.6
VAS		4.0 \pm 2.9
HAQ		0.7 \pm 0.8

DAS28: Disease activity score 28; VAS: Visual analogue scale; HAQ: Health assessment questionnaire.

Table 3. Comparison of the overall score and mean scores of the different FSFI domains between cases and controls.

	Cases (n = 52)	Controls (n = 53)	p-value
RA duration (years)	2.5 \pm 1.1	3.0 \pm 1.2	0.01

Continued

Age of onset (years)	1.5 ± 1.7	2.8 ± 1.9	0.7
Morning stiffness	1.7 ± 2.0	3.2 ± 2.0	0.3
<30 min	1.3 ± 1.8	2.8 ± 1.9	0.8
≥30 min	2.5 ± 1.7	3.7 ± 1.7	0.1
Ankylosed joints	1.7 ± 2.1	3.0 ± 1.9	0.3
Tender joints	11.3 ± 9.4	18.5 ± 9.7	0.0006
Swollen joints			

Table 4. Sexual dysfunction by age and HAQ in women with rheumatoid arthritis and in healthy women.

	Age 18 - 50 years n (%)	Age 51 - 73 years n (%)	p-value
Presence of sexual dysfunction	37 (45.7%)	19 (79.2%)	0.0039
No sexual dysfunction	44 (54.3%)	5 (20.8%)	
	HAQ* [0 - 1]	HAQ* [1 - 3]	p-value
Presence of sexual dysfunction	25 (65.8%)	11 (78.6%)	0.376
No sexual dysfunction	13 (34.2%)	3 (21.4%)	

hospital in Conakry, Guinea. This study collected hospital data that cannot be extrapolated to the general population. Our department is the unique rheumatology department in Guinea but the patients do not consult systematically. In their journey to treatment, they still require a lot to traditional medicine before coming to medical structures. The consideration by the subject of sexuality as a taboo in our society was another limitation in collecting data such as talking about sexuality to a third person especially in Guinea. Interview by a woman helped to remove this barrier. The frequency of sexual dysfunction in patients was similar to Moroccan data [15] (71.9% for cases vs. 54% for controls). Similarly, in Turkey, a high frequency of sexual dysfunction was reported [16]. This high frequency could be explained by the fact that pain, fatigue and stiffness are the main signs of RA, thus putting sexuality at the bottom of the priority list. The mean age of the patients was comparable to that of Kars Fertelli T [16] (49.5 ± 8.14 years) and Frikha F *et al.* [17] (42.5 ± 5.8 years). This result could be explained by the fact that, according to literature, RA most often affects women in the age group between 40 and 60 years [18]. The high frequency of married women was similar to the data reported by Lin M-C *et al.* [19] (92.9%). This could be explained by the fact that the religious context of the population for who marriage is a very important value in the custom. The marriage average duration was similar to the Egyptian report [20] (18.5 ± 3.5 years; range: 3 and 37 years) and the Tunisian data [17] (17.7 years; range: 2 and 28 years). In our context, women marry ant a young age. The high co-wife rate has been reported

in Senegal (23.8%) [6]. The symptoms of the disease influence the relationship between the spouses. This would lead the husband, not satisfied with his sex life in general to take another wife. The impact of RA on patients' life quality was lower than that reported in Turkey [21] (HAQ = 1.3 ± 0.7). This low frequency could be explained by the fact that most patients are quickly diagnosed and immediately started on treatment. This would significantly reduce the impact of RA on their quality of life. The moderate disease activity was thought to be related to the fact that patients most often return to their doctor when they experience symptoms of the disease. The low sexual desire of RA patients compared to controls was similar to the data of Aras H *et al.* [22] (cases 2.1 ± 0.9 vs. controls 3.02 ± 0.8). This low sexual desire in female RA patients could be explained by the cognitive and emotional aspects of sexual desire, which are often altered during chronic diseases [5]. Sexual arousal in patients was lower than in Tunisian patients [5] (3.27 ± 1.5). This could be due to the decreased libido caused by RA, always associated with the importance of joint pain, hence a decrease in arousal [23]. Low sexual lubrication in patients was lower than in Turkey [16] (cases 3.52 ± 0.99 vs. controls 3.54 ± 1.08). This may be related to the fact that RA may be accompanied by mucocutaneous dryness. The patients and controls had a lower orgasm than the Moroccan patients [24] (cases 3.86 ± 1.47 vs. controls 2.70 ± 1.80). This low score comes from fatigue and joint pain that would prevent patients from experiencing sufficient pleasure during sexual activity. This concept of orgasm, which can sometimes be difficult to define, was however well understood by our respondents. Contrary to the parameters described above, the patients' sexual satisfaction was comparable to the data of Aras H *et al.* [22] (cases 2.05 ± 0.9 vs. controls 3.9 ± 1.3). This low sexual satisfaction could be explained by the patients' fear of pain related to movements. They would prefer to shorten the duration of sexual intercourse, which would lead to dissatisfaction [25]. Our patients had more pain during vaginal penetration than those of Coskun B *et al.* [26] (cases 4.26 ± 1.77 vs. controls 5.50 ± 0.56). The fact that the patients were not sufficiently lubricated they could experience pain during vaginal penetration. The high risk of sexual dysfunction in patients with RA would be related to the main symptom of RA: pain; but also to the psychological state of patients. There was a correlation between age and sexual dysfunction which is much more prevalent in young people. This is because in general, older women are less sexually active than younger ones.

5. Conclusion

Rheumatoid arthritis is chronic inflammatory rheumatism and its symptoms have a significant impact on the sexuality of women who suffer from that condition, because of the functional handicap it causes. The absence of studies on this aspect in Guinea led us to highlight the negative impact of this disease on sexuality. A larger study is needed to better assess this issue and seek management solutions.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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