



# Sexual Activity and Functioning in Female Scleroderma (SSc) Patients.

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## Introduction

### Rationale

Systemic sclerosis (scleroderma or SSc) is a chronic multisystem disorder involving the skin, joints, gut, lungs, kidney, heart, and blood vessels. It has a profound impact on quality of life and limits many activities. Disease-related limitations on sexual functioning may impact quality of life and interpersonal relationships. Its effects on sexuality may be directly due to adverse effects of the disease process on the sexual organs or a secondary effect of non-specific symptoms such as depression or fatigue. Several studies have investigated erectile dysfunction (ED) in scleroderma and have reported a prevalence of ED between 12 to 81% (Hong, Pope, Ouimet, Rullan, & Seibold, 2004). Very few studies however have investigated female sexual function and quality of sex life in women with systemic sclerosis although women comprise approximately 80% of the afflicted population. This study examined sexual activity and sexual dysfunction in a population of female scleroderma patients.

## Methods

### Subjects

Sequential female ambulatory scleroderma patients were recruited over an 8 week time period through the outpatient clinic of the Scleroderma Program at Robert Wood Johnson Medical School. Additional female scleroderma patients were identified from the outpatient clinic's database and were contacted by mail.

Response rate during clinic visit was 93.8% compared to 33.7% for the mail questionnaires.

### Assessments

Three self-administered written questionnaires were utilized to assess general quality of life (QoL), health status, sexual functioning, and the impact of scleroderma on sexual functioning.

- SF-36: measure of QoL (overall, physical and mental component scores).
- Female Sexual Function Index (FSFI): measure of sexual functioning. The FSFI is a 19 question written survey which quantitatively assesses six domains of sexual functioning: desire, subjective arousal, lubrication, orgasm, pain, and satisfaction. (Rosen et al., 2000).
- Female Sexual Function in Scleroderma: to measure the impact of scleroderma on sexual function (pilot questionnaire developed by the Robert Wood Johnson Scleroderma Program). Patients were asked to identify which scleroderma-related problems affected their sexual functioning.
- Medical Chart Review: to measure extent and severity of scleroderma. Information collected included patient age, classification of disease, duration of disease as measured from onset of the first non-Raynaud's phenomenon symptom, and the presence or absence of scleroderma involvement of the gastrointestinal, pulmonary or renal systems.

## Results

Table 1: Correlations between IFSF score and subscales SF-36.

SF-36 Subgroup	Correlation Coefficient (r)	P-value
<b>Summary Score</b>	.528	<.001
Physical Component Score (PCS)	.194	.137
<b>Mental Component Score (MCS)</b>	.540	<.001
Physical Functioning (PF)	.264	.042
Physical Role Limitations (RP)	.277	.032
Body Pain (BP)	.291	.024
General Health Perception (GH)	.397	.002
Vitality (VT)	.393	.002
Social Functioning (SF)	.578	<.001
Emotional Role Difficulties (RE)	.473	<.001

Table 2: Scleroderma Related Sexual Problems

Scleroderma Related Problem	Sexually Active Participants Citing Difficulties
Fatigue	36 (60%)
Vaginal Dryness	25 (41.7%)
Body Pain	24 (40%)
Vaginal Discomfort	23 (38.3%)
Depression	17 (28.3%)
Shortness of Breath	16 (26.7%)
Mouth Size/Dryness	14 (23.3%)
Raynaud's Phenomenon	13 (21.7%)
Hand Pain	13 (21.7%)
Heartburn	13 (21.7%)
Cosmetic Appearance	10 (16.7%)
Abdominal Pain	9 (15%)
Finger Sores	9 (15%)
Inability to Use Hands	8 (13.3%)
Medications	6 (10%)

Table 3: Comparison of FSFI Scores in Patients with a Scleroderma-Related Problem and Those Without.

Scleroderma Related Problem		Mean IFSF Score	(p-value)
Body Pain	Present	23.2	.106
	Absent	26.0	
Shortness of Breath	Present	22.9	.172
	Absent	25.6	
Cosmetic Appearance	Present	21.2	.052
	Absent	25.7	
<b>Depression</b>	Present	21.0	.004 *
	Absent	26.4	
Fatigue	Present	23.7	.079
	Absent	26.8	
<b>Hand Pain</b>	Present	21.7	.019 *
	Absent	26.0	
Heartburn	Present	25.9	.530
	Absent	24.6	
Mouth Size/Dryness	Present	22.7	.154
	Absent	25.6	
<b>Raynaud's Phenomenon</b>	Present	20.1	.003 *
	Absent	26.2	
<b>Vaginal Discomfort</b>	Present	19.7	<.001 *
	Absent	28.1	
<b>Vaginal Dryness</b>	Present	20.3	<.001 *
	Absent	28.2	

## Conclusions

- Women with Scleroderma remain sexually active (59.4%)
- Quality of sexual function by IFSF (sexually active group only) is depressed as compared to the general population (24.9 vs 30.5).
- No correlation was found between IFSFI scores and age ( $r = -.175, p = .180$ ) or disease duration ( $r = -.145, p = .272$ )
- Sexual Function is correlated with the Mental Composite of the SF-36 and unrelated to the Physical Composite
- However, scleroderma-related physical problems appear to impact sexual functioning. Raynaud's phenomenon, hand pain, vaginal dryness and discomfort, and fatigue, were physical findings that correlated with decreased sexual functioning.
- Physical problems are often amenable to pharmacological intervention and increased attention to gynecological health and sexual functioning should be part of the clinical management of these patients.

## References

- Hong, P., Pope, J. E., Ouimet, J. M., Rullan, E., & Seibold, J. R. (2004). Erectile dysfunction associated with scleroderma: a case-control study of men with scleroderma and rheumatoid arthritis.[see comment]. *Journal of Rheumatology*, 31(3), 508-513
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