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THE EFFECT OF CERVICAL DISC HERNIA TIONS ON SEXUAL FUNCTION

SERVİKAL DİSK HERNİASYONLARININ CİNSEL FONKSİYONLAR ÜZERİNE ETKİSİ

Mehmet Reşid ÖNEN[1],
Evren YÜVRÜK[1],
Fuat TORUN[1],
Sebahat TORUN[2],
Soner ŞAHİN[3],
Sait NADERİ[4]

[1]*Department of Neurosurgery, Health Sciences University, Umraniye Training and Research Hospital, Ümraniye, Istanbul, Turkey.*

[2]*Public Health Department, Assist Co., Istanbul, Turkey.*

[3]*Department of Neurosurgery, Bahçeşehir University Medical Faculty, Istanbul, Turkey.*

[4]*Prof. of Neurosurgery, Department of Neurosurgery, Health Sciences University, Umraniye Training and Research Hospital, Ümraniye, Istanbul, Turkey.*

SUMMARY

Introduction: The sexual activity of patients with cervical disc hernia (CDH) can be affected by pain or the use of analgesia. The aim of this study was to evaluate the sexual problems and sexual behavior of patients diagnosed with CDH.

Material-method: The study included 30 patients, evaluated in respect of pain and sexual dysfunction with preoperative Visual Analog Scale (VAS), Oswestry Disability Index (ODI), Hospital Anxiety and Depression Scale (HADS) and Sexual Assessment Questionnaire (SAQ).

Results: The mean age of patients was 44.0 ± 10.1 years and the duration of symptoms was determined as mean 26.93 years. A statistically significant difference was determined between patients aged >41 years and < 41 years in respect of the duration of pain (p <0 .05). The frequency of neck pain was statistically significantly different between males and females (p<0.05). It was reported by 65.5 % of patients that after the onset of neck pain, the frequency of sexual intercourse decreased. Impaired orgasm was reported in 51.7% of cases and in those who reported decreased sexual desire, this rate was 58.6%. Pain was reported during sexual intercourse by 65.6 % of patients. No change in sexual life was reported by 17.2 % of patients.

Conclusion: The results of this study showed that all stages of sexual life could be affected by CDH and thereby demonstrated a need for closer investigation of this complaint.

Key Words: Cervical disc herniation, sexual function, sexual problem

Level of evidence: Retrospective clinical study, Level III.

ÖZET

Amaç: Servikal disk herni (SDH)'li hastalarda cinsel aktivite, ağrı veya analjezik kullanımı nedeniyle etkilenebilir. Bu çalışmanın amacı, SDH tanısı konulan hastalarda, cinsel problemler ve cinsel davranış biçimlerini değerlendirmektir.

Yöntem: Otuz hasta çalışmaya alındı. Ağrı ve cinsel fonksiyon bozukluğu, cerrahi öncesi Görsel Analog Ölçeği (VAS), Oswestry Yetiyitimi Ölçeği (ODS), Hastane Anksiyete ve Depresyon Ölçeği (HAD) ve Cinsellik Değerlendirme Ölçeği ile değerlendirildi.

Bulgular: Hastaların yaş ortalaması 44.0 ± 10.1 yıldı. Semptom süresi ortalama 26.93 ay idi. Boyun ağrısı süresi 41 yaşından büyük ve 40 yaşından küçük olgular karşılaştırıldığında istatistiksel olarak anlamlı farklılık bulunmuştur (p < 0.05). Boyun ağrısı sıklığı istatistiksel olarak kadın ve erkek grupları arasında (p < 0.05) farklıydı. Olguların % 65.5'inde boyun ağrısının başlangıcından sonra cinsel ilişki sıklığının azaldığı belirlenmiştir. Olguların % 51.7'sinde orgazm bozukluğu saptanmış, bu oran cinsel istek azalması tanımlanan olgularda % 58.6 olarak belirlenmiştir. Cinsel ilişki esnasında ağrı belirlenen hastalar tüm hastaların % 65.6'sını oluşturmaktadır. Olguların % 17.2'sinde cinsel hayatta değişiklik bildirilmemiştir.

Sonuç: Bu çalışma, SDH'sinde cinselliğin tüm aşamalarında etkilenme olabileceğini ortaya koyarak, bu yakınmanın daha yakından sorgulanması gerektiğini göstermektedir.

Anahtar Sözcükler: servikal disk hernisi, cinsel işlev, cinsel işlev bozukluğu

Kanıt Düzeyi: Retrospektif klinik çalışma, Düzey III

Address: Dr. Mehmet Reşid ÖNEN, Deparment o Neurosurgery, SBU Umraniye Egitim ve Arastirma Hastananesi, Umraniye, Istanbul.
Gsm: +90 505 354 04 21
E-mail: mresid@gmail.com
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INTRODUCTION

Sexual function plays an important role in people's lives. Differing from animals, it is not just a reproductive function but a necessary component in the ability to maintain healthy relationships and self-confidence. A cessation in sexual life for any reason may lead to serious problems between partners.

Body movements with increasing chronic pain syndromes significantly restrict sexual activity. Other factors increasing sexual problems are depression caused by chronic pain and medical agents used. All these negative factors result in a vicious circle between the individual in pain and their partner.

Previous studies in literature have reported that impaired sexual activity is associated with chronic pain syndromes such as lumbar disc hernia, diabetes, cardiac dysfunctions and rheumatismal diseases [8,15-16]. Detailed studies have been made examining the preoperative and postoperative results in respect of sexual activity problems in cases with LDH and low back pain [1,7,10,14]. However, there are no studies including sexual problems related to CDH. There are studies which have examined sexual function impairments which have developed related to cervical spondylotic myelopathy (CSM) and post-traumatic spinal cord damage, although these studies have been directed to pathologies formed by sexual function loss created in the neural arch engendered by spinal cord damage. In addition to the neurological deficits in these pathologies, abnormal psychogenic erection and normal reflexogenic erection are seen. Together with postoperative neurological recovery, an improvement can be seen in sexual functions in most patients [6].

In patients with CDH, neck and radicular pain are the primary complaints. No significant neurological deficit is seen in the majority of patients. In particular, pain which varies with position has significant negative effects on the tempo of daily work. The chronic pain table which develops also has a negative effect on sexual life.

The aim of this study was to evaluate the sexual problems and forms of sexual behavior in patients diagnosed with CDH.

MATERIAL AND METHOD:

The study included a total of 30 patients who presented at our clinic with neck and/or arm pain and were determined with CDH on magnetic resonance imaging (MRI). The patients were evaluated preoperatively in respect of pain and impaired sexual function, using a Visual Analog Scale (VAS), Oswestry Disability Index (ODI), Hospital Anxiety and Depression Scale (HAD) and Sexual Assessment Questionnaire (SAQ) **(Table-1).**

Table-1. Demographic characteristics

Gender	13 Female, 17 male,	
Age groups (years)	<35	7 (23.3%)
	35-44	8 (26.7%)
	45-54	10(33.3%)
	55+	5(16.7%)
	<40	12 (40%)
	>40	18(60%)
Marital status	Married	27(90.0%)
	Single	3(10.0%)
Habits	Smoking	13(43.3%)
	Alcohol	3(10.0%)
Previous neck surgery	Yes	5(16.7%)

Table-2. Pain Status

Pain frequency	Continuous	18(60%)
	Sometimes	8(26.7)
	Rarely	4(13.3%)
Pain localization	Neck	2(6.7%)
	Arm	8(26.7%)
	Neck and arm	20(66.6%)

Table-3. Frequency of sexual intercourse

frequency of sexual intercourse	Every day	1(3.3%)
	1 per Week	11(37.9%)
	2-5 times per Week	6(20.7%)
	Rarely	10 (33.3)
frequency of sexual intercourse after the onset of pain	Never	5(17.2%)
	Very decreased	11(37.9%)
	Slightly decreased	20(27.6%)
	No change	5 (17.2%)

Table-4. VAS, HAD and ODI scores

	Gender	N	Mean±Standard deviation	P value
VAS	Female	12	7.2±2.2	p<0.05
	Male	17	6.4±1.8	
HAD score	Female	12	33.3±3,4	p<0.003
	Male	17	34.7±2.5	
Oswestry Disabilty Index	Female	12	32.1±8.6	p>0.05
	Male	17	22.2±9.1	

The patients were separated according to gender and age groups for comparison. The results were compared between two age groups of >40 years and < 40 years in particular. Patients were

excluded from the study if they had other musculoskeletal system disorders, psychiatric disorders or were using narcotic analgesics, opioids or psychotropic drugs which could affect sexual functions. Approval for the study was granted by the Local Ethics Committee.

Informed consent was obtained from all the patients and confidentiality of all personal information was guaranteed.

In the first stage, all the cases were evaluated with the SAQ. In this evaluation, questions were asked about the frequency of sexual intercourse, sexual desire and stimulation, the time from the onset of pain to sexual problems, whether or not there had been any sexual problems before the onset of clinical problems and whether or not their partner had any sexual problems.

The ODI was developed by Fairbank et al to evaluate functional deficiency [5]. This scale was 73 adapted for a Turkish population by Yakup et al 17. In the scale, daily living activities are evaluated with 10 questions scored from 0-5 as 6 options. In this evaluation, a total score of 0-4 indicates no disability, 5-14; mild disability, 25-34; serious disability, and 35-50; functional insufficiency. The VAS evaluation for the general level of pain was made on a horizontal line marked 0-10.

HADS is an evaluation made with 14 questions. The Turkish version of HADS was used in this study [2].

All the scales were applied in a gender-appropriate manner to all patients. To prevent test-related anxiety developing, detailed information was given and patient consent was obtained before the tests.

Statistical Analysis:

Demographic data were analyzed using the Student's t-test and the Chi-square test. The Wilcoxon test and the Mann Whitney U-test were used to evaluate within-group changes.

RESULTS:

The patients were 13 females (mean age, 44.2 ± 8.1 years) and 17 males (mean age, 43.8 ± 11.0 years). The mean age of the whole group was 44.0 ± 10.1 years. Marital status was reported as married in 27 patients and single in 3. Five patients had previously undergone surgery for CDH.

Cigarette smoking was reported by 13 (43.3 %) patients and alcohol consumption by 3 (10%).

The duration of symptoms in the whole group was mean 26.9 months; in the group aged <40 years, mean 3.5 months (range 1-12 months) and in the group aged >40 years, mean 42.5 months (range, 1-240 months). When the duration of neck pain was compared between the groups aged >40 years and < 40 years, the difference was determined to be statistically significant ($p < 0.05$).

Pain was reported as continuous by 18 patients, intermittent by 8 and occasional by 4. In 2 patients only neck pain was experienced, in 8 patients only arm pain and in 20 patients, neck and arm pain together. The frequency of pain was determined to be statistically significantly different between the male and female groups ($p < 0.026$).

A decrease in the frequency of sexual intercourse after the onset of pain was reported by 65.5 % of the patients. Impaired orgasm was reported in 51.7 % of cases and in those who reported decreased sexual desire, this rate was 58.6 %. Pain was reported during sexual intercourse by 65.6 % of the whole patient group. No change in sexual life was reported by 17.2 % of cases. No statistically significant difference was determined in respect of sexual desire, sexual pleasure, gender or age ($p > 0.05$).

In the VAS and ODI evaluations, a significant restriction in daily living was reported by 27 patients. The VAS and ODI values were 7.2 ± 2.2, and 32.0 ± 8.6 respectively for females and 6.4 ± 1.8 and 22.2 ± 9.0 for males. The HAD values were calculated as 33.3 ± 3.4 for females and 34.7 ± 2.5 for males. When comparisons were made between the genders, a statistically significant difference was determined in the VAS and ODI scores ($p < 0.05$) but no significant difference was seen in respect of the HAD scores ($p > 0.05$).

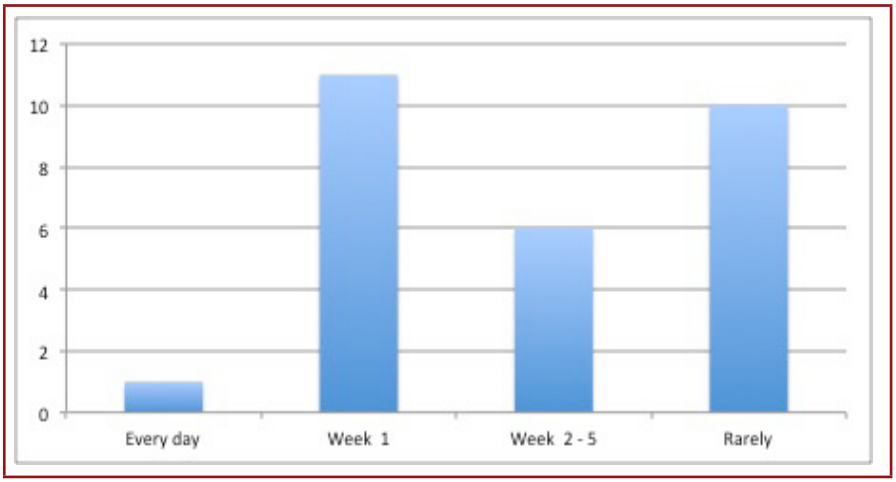

Figure-1. Frequency of sexual intercourse

DISCUSSION

Spinal diseases are problems which affect the patient's life in many respects. Cervical spinal diseases lead to a deterioration in quality of life by restricting activities. Chronic

pain makes it difficult to undertake daily activities. Simple daily activities such as dressing, washing and lying down are restricted. Limited or total loss of working capacity related to disc diseases leads to severe losses in an economic sense. Discopathy pain often leading to chronic pain causes depression. The most common findings of depression are seen as sleep disorders, eating disorders, insecurity, low libido, irritability, reduced social relationships and a reduction in social and physical activities [12]. All these factors affect quality of life and sexual life, which is an important component of quality of life. In a questionnaire-based study by Lew-Strowicz conducted between 2002 and 2005, of the factors affecting sexual relationships between partners, health status was reported by 77 % to have an effect[9]. Whatever factor it is related to, conditions developing sexual dysfunction trigger other depressive conditions.

Various studies have been conducted which have shown a relationship between sexual behavior and pain in LDH patients [10,14]. The effect of different sexual positions on lower back pain and the lumbar spinal segment movement gap during coitus have been examined in many different studies[7,13]. In cervical pathologies, there are studies which have been conducted on cases who develop CSM and cervical spinal cord damage in particular [3-4,6]. However, to the best of our knowledge, there has been no research into sexual behavior impairment seen in CDH cases.

In the current study, evaluation was made of male and female cases separately and by classifying different age groups. While no difference was seen between patients aged <40 years and >40 years in respect of the severity of neck pain, a statistically significant difference was observed between male and female patients. In addition to sexual dysfunctions, patients were evaluated in respect of VAS, ODI and HAD scores, depression, and smoking and drinking habits. While 43.3 % of the current cases reported smoking, the rate of alcohol consumption was extremely low at 10 %. The cases who smoked were evaluated in respect of peripheral vascular disease and no evident pathology was determined in any case. The mean duration of symptoms was 3.5 months in patients aged < 40 years and 42.5 months in those aged >40 years. The difference between the two groups was determined to be statistically significant. The majority of patients (60 %) had complaints of continuous neck pain and most reported that arm pain accompanied the neck pain. The frequency of pain was seen at a greater rate in females than in males.

In the cases of the current study who developed neck pain, 65.5 % reported a decrease in frequency of sexual relationships in the period following the onset of pain. Many factors together were seen to have an effect on this decrease in frequency. Problems common to both genders, but seen more frequently in females, were reduced sexual desire (58.6 %), orgasm disorders (51.7 %) and dyspareunia (23.3 %). In male patients, problems were seen such as premature ejaculation (26.6 %), impotence (3.4 %) and difficulty ejaculating (3.4 %).

Pain was reported to have prevented initiating sexual intercourse by 50 % of the patients and of these, 16.6 % reported that it completely prevented them. These rates showed that pain was a factor in couples planning relationships. Due to depressive psychology and mood changes caused by pain, 73.3 % of the patients reported that interest in sexual subjects had decreased or been completely lost. Sexual pleasure was reported to have decreased by 56.6 % of patients. No statistically significant difference was determined in this respect between those aged older or younger than 40 years.

Chronic pain is a recognized cause of depression [11]. In the HAD scoring to evaluate the general health status and psychological health, 23.3 % of patients reported a poor general health status and 93 % reported a deteriorated psychological state. These results demonstrate how important chronic pain is as an indicating factor of mental health. Although no statistically significant difference was determined between males and females in respect of HAD scores, a statistically significant difference was seen in the ODI scores at 32.0 ± 8.6 for females and 22.2 ± 9.0 for males.

In conclusion, just as the neck and arm pain developing in CDH patients has a negative effect on general living performance, as in other cases of chronic pain, it also significantly affects sexual life. The loss of sexual desire and sexual pleasure that was seen showed no difference between the genders or the age groups. Preventative measures taken with both medical and surgical methods to reduce pain in CDH patients will reduce secondary losses engendered by chronic pain in the long term. Therefore, in addition to the classic examination findings, patients with CDH should be evaluated in respect of sexual problems and referred accordingly.

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