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The Reasons for the Rejection of Spinal Interventional Pain Management Techniques in Patients with Chronic Lower Back Pain

Kronik Bel Ağrısı Olan Hastaların Spinal Girişimsel Ağrı Tedavisi Yöntemlerini Reddetme Sebepleri

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Abstract

We investigated the reasons for the rejection of spinal interventional pain management techniques (SIPMT) in patients with lower back pain. The patients included in the study applied to an algology outpatient clinic with complaints of chronic lower back pain and were recommended SIPMT. The demographic data, systemic diseases, diagnoses, suggested SIPMT, and reasons why certain patients refused SIPMT, were all evaluated. Among the 196 patients who were recommended SIPMT, 61 (31.1%) refused the treatment. The most common reasons for refusing SIPMT was a belief that the injection would not be a definitive solution (63.9%), belief that the pain would recur after the injection (55.7%), the inability to avoid work that would strain the lower back after the injection (39.3%), and the fear that the pain would worsen (37.7%). If the wide range of concerns patients have about SIMPT can be more comprehensively considered, refusal of such treatments due to unnecessary concerns can be prevented.

Keywords: Concern, Lower back pain, Refusal reasons, Spinal, Interventional pain management.

Özet

Bel ağrısı olan hastalarda spinal girişimsel ağrı yönetimi tekniklerini (SIPMT) reddetme nedenlerini araştırdık. Algoloji polikliniğine kronik bel ağrısı şikayeti ile başvuran ve SIPMT önerilen tüm hastalar çalışmaya dahil edildi. SIPMT'yi reddeden hastaların demografik verileri, sistemik hastalıkları, tanıları, önerilen SIPMT'ler ve SIPMT'yi reddetme nedenleri değerlendirildi. SIPMT önerilen 196 hastadan 61'i (%31.1) tedaviyi reddetti. SIPMT'nin en sık reddedilme nedenleri enjeksiyonun kesin çözüm olmayacağı düşüncesi (%63.9), enjeksiyondan sonra ağrısının tekrarlayacağı düşüncesi (%55.7), enjeksiyon sonrası belini zorlayacak işlerden kaçınamama (%39.3) ve ağrısının şiddetleneceği korkusu (%37.7) olarak tespit edildi. Hastaların SIMPT'le ilgili geniş bir yelpazede endişeleri vardır. Hastaların endişelerini daha fazla ve daha kapsamlı bir şekilde dikkate alarak giderebilirsek gereksiz endişelerle tedaviyi reddetmelerini önleyebiliriz.

Anahtar Kelimeler: Endişe, Bel ağrısı, Ret nedenleri, Spinal, Girişimsel ağrı tedavisi.

Introduction

Lower back pain is among the world's top 5 leading causes of disability and medical complaints [1]. Today, the treatment of pain is important in terms of improving the quality of life of the individual and reducing health expenditures. Spinal interventional pain management techniques (SIPMT) are effective and frequently used in chronic patients who do not respond to conservative treatments. While surgical treatments are beneficial, the risk of failed back surgery syndrome and possible complications make SIPMTs increasingly popular [2].

While there have been significant advances in SIPMTs in recent years, development and wider use of these techniques have been accompanied by emerging complications and failures [3]. This has, in turn, both caused patients to hesitate to accept these procedures when they are suggested, and a subsequent increase in the refusal rate and delays in treatment. Although survey studies on the reasons for patient refusal of the procedure have been conducted in surgical subjects, there is a limited literature on the reasons for why patients refuse SIPMTs [2,4,5].

The aim of this study is to reveal the reasons for patients refusing recommended SIPMT. It is hoped that this evaluation will help in the organization of patient and physician training sessions to increase patient compliance with treatment. The timely treatment of chronic pain can reduce the labor force, time loss and cost burden arising from the delay of the procedure.

Material and Method

The patients in the study were admitted between October and November 2022 to the algology outpatient clinic of Ağrı Training and Research Hospital complaining of chronic lower back pain and were subsequently recommended SIPMT. Local Institutional Review Board approval has been obtained (reference number: E-95531838-050.99-56054).

Patients under the age of 18, as well as those who were unable to complete the questionnaire, were excluded. The following were evaluated: age, gender, body mass index, educational status, occupation, presence of systemic diseases, diagnosis, duration of pain, recommended interventional procedure, pre-procedural visual analog scale (VAS) score, previous history of SIPMT and the outcome, if applied, and a questionnaire to screen the reasons for SIPMT being refused.

Statistical Analysis

Data was analyzed using SPSS 25.0 (IBM Co®, New York). The Kolmogorov-Smirnov test was applied for normality analysis. Categorical data was expressed as a number (n) and as a percentage (%). Numerical variables that fit the normal distribution are shown as mean±standard deviation, and numerical variables that do not fit the normal distribution are shown as median and minimum-maximum (min-max). Fischer's exact chi-square test was used to compare categorical variables between groups. A value of $p<0.05$ was adopted for statistical significance.

Results

Among the 196 patients who were recommended SIPMT, 61 (31.1%) refused the treatment. The demographic characteristics of the patients who refused SIPMT are shown in Table 1. The mean age of the patients was 47.10±14.51 years, and approximately 2/3 were women (65.6%). In terms of educational status, the majority was made up of primary school (41%) and university graduates (37.7%), while there was a significant proportion of patients who had never attended school (16.4%). The most common professions were housewives (39.3%) and civil servants (14.8%).

The VAS score of the patients was 8.28±1.02 and the median duration of pain was 12.0 months. Of the 68.9% (42/61) of patients who refused SIPMT, the diagnosis was lumbar disc herniation (LDH). Other diagnoses included spinal stenosis, failed back surgery syndrome (FBSS), facet syndrome, coccydynia and postherpetic neuralgia. Among patients who refused SIPMT, 50.8% (31/61) were recommended lumbar transforaminal epidural steroid injection (TFESI) and 18% (11/61) lumbar interlaminar steroid injection (LESI). The other recommended procedures are presented in Table 2.

Table 1. The demographic features of the patients refused the treatment in the study.

		n (%) or mean ± standard deviation
Age (mean ± standard deviation)		47.10±14.51
Gender (n/%)	Female	40 (65.6)
	Male	21 (34.4)
Educational status (n/%)	Unschooled	10 (16.4)
	Primary school	25 (41.0)
	Middle school	-
	High school	3 (4.9)
	University	23 (37.7)
Job (n/%)	Housewife	24 (39.3)
	Officer	9 (14.8)
	Small business	6 (9.8)
	Farmer	5 (8.2)
	Private sector qualified personnel	5 (8.2)
	Retired	5 (8.2)
	Employee	3 (4.9)
	Other	4 (6.6)

Table 2. The clinical features, diagnoses and planned SIPMT of the patients.

		n (%) or mean ± SD
VAS (mean ± SD)		8.28±1.02
Duration of pain (months) (median [min-max])		12.0 [1.0-240.0]
Diagnosis	LDH	42 (68.9)
	Spinal stenosis	6 (9.8)
	FBSS	4 (6.6)
	Facet syndrome	4 (6.6)
	Coccydynia	4 (6.6)
	Postherpetic neuralgia	1 (1.6)
Planned SIPMT	TFESI	31 (50.8)
	LESI	11 (18)
	CESI	2 (3.3)
	DRG-PRF/FMNRF	9 (14.8)
	FMN diagnostic block	5 (8.2)
	GIB	3 (4.9)
History of SIPMT	No	48 (78.7)
	Yes, satisfied	5 (8.2)
	Yes, dissatisfied	8 (13.1)
Systemic Disease	No	43 (70.5)
	Yes	18 (29.5)

SIPMT: spinal interventional pain management techniques, SD: Standard Deviation, VAS: *visual analog scale,* LDH: lumbar disc herniation, FBSS: failed back surgery syndrome, TFESI: transforaminal epidural steroid injection, LESI: lumbar interlaminar steroid injection, CESI: caudal epidural steroid injection, DRG-PRF: dorsal root ganglion pulsed radiofrequency, FMNRF: facet median nerve radiofrequency, FMN: facet median nerve, GIB: ganglion impar block.

Table 3 presents the number and percentage of each item according to the responses of the patients to the SIPMT refusal reasons survey. Among the 17 different reasons given in the survey as reasons for refusing SIPMT, the most common were the belief that the injection would not be a definitive solution (63.9%), belief that the pain would recur after the injection (55.7%),

the inability to avoid work that would strain the back after the injection (39.3%), and the fear that the pain would worsen (37.7%).

Table 4 demonstrates that among the patients, 8.2% provided a single reason, 13.1% two different reasons, 24.6% three different reasons, and 54.1% more than three reasons, for refusing the procedure.

On the other hand, of the 135 patients who consented to SIPMT during the same time period, 65.9% (89/135) were female and 34.1% (46/135) were male. There was no significant difference between patients who underwent, and those who refused, SIPMT in terms of gender (p=0.962). Of the 135 patients, 48.1% (65/135) underwent lumbar TFESI, 29.6% (40/135) underwent lumbar DRG-PRF or FMNRF, 14.1% (19/135) underwent lumbar FMN diagnostic block, and 8.1% (11/135) underwent LESI. There were no significant differences in the rates of TFESI (p=0.759), lumbar DRG-PRF or FMNRF (p=0.155), lumbar FMN diagnostic block (p=0.155) and LESI (p=0.132) between patients who underwent, and those who refused, SIPMT.

Table 3. Reasons why patients refused spinal interventional pain management techniques (n/%).

Survey question	yes / no (%)
Fear of death	5 (8.2)
Fear of disability	12 (19.7)
Fear that the pain will worsen	23 (37.7)
Concern about sexual dysfunction	1 (1.6)
Concern about urinary incontinence and large bladder	6 (9.8)
Concern about not being able to continue working after the injection	13 (21.3)
Inability to avoid work that will strain the lower back after the injection	24 (39.3)
The belief that injection would not be a definitive solution	39 (63.9)
The belief that the pain will recur after the injection	34 (55.7)
Presence of dissatisfied patients with injections among their relatives	13 (21.3)
Inadequate information about injections	1 (1.6)
Negative-unreliable behavior of the doctor	-
Desire to obtain another physician’s opinion	9 (14.8)
Tomophobia	18 (29.5)
Refusal to take cortisone	14 (23.0)
Traditional and Complementary Medicine Practices	2 (3.3)
The thought of undergoing physical therapy	18 (29.5)
The thought of having an operation	8 (13.1)

Table 4. Number and percentage of reasons for SIPMT refusal of patients.

Number of marked rejection reasons	n (%)
1	5 (8.2)
2	8 (13.1)
3	15 (24.6)
4	14 (23.0)
5	9 (14.8)
6	4 (6.6)
7	3 (4.9)
8	1 (1.6)
9	1 (1.6)
11	1 (1.6)

SIPMT: Spinal interventional pain management techniques.

Discussion

According to an epidemiologic study published in 2013, the prevalence of lower back pain was reported as 59.2% [6]. In our country, the lifetime prevalence of low back pain was 44-79%, the point prevalence was 20.1-19.7%, and the annual prevalence was 35.99% [7]. It has been reported that annual expenditures for lower back pain (*diagnosis, management, economic losses in productivity*) in the United States of America exceeded 90 billion dollars [8], although this figure is clearly much higher when the financial effect of the condition due to lost working hours is considered. All of the above demonstrates the importance of treating lower back pain successfully before it becomes chronic. In such successful treatment, the timely implementation of SIPMT to the right patient is essential.

Investigating the concerns of patients regarding SIPMTs is important in both understanding the problems that patients experience and improving the quality of care and treatment. Many studies have been conducted on the concerns of patients about spinal surgeries and their reasons for refusal [4,9]. There have also been studies on patient dissatisfaction with spinal anesthesia and the factors associated with refusal [5,10,11]. However, no data has been located on the reasons for patients with lower back pain refusing SIPMT.

Durdağ et al. [9] investigated the reasons for refusing surgery by conducting a survey on 100 patients who were recommended spinal surgery and refused the treatment. They reported that 40% (40/100) of the patients were dissatisfied because they, or a relative, had undergone an operation involving the neurosurgery branch. 46% of the patients refused surgery due to distrusting it, 6% due to the presence of a systemic disease, 14% due to lack of support for postoperative care, 18% due to excessive workload, and 16% due to lack of support for postoperative rehabilitation and/or childcare while working. Luo et al. [4] evaluated preoperative concerns in patients with spinal degenerative disease. They reported that patients were most concerned about the recurrence of postoperative symptoms (41/94), clinical outcome (35/94), postoperative rehabilitation and daily activity (30/94), and limb paralysis (27/94). In our study, the most common reasons for the refusal of SIPMT were the belief that the injection would not be a definitive solution (63.9%), the belief that the pain would recur after the injection (55.7%), the inability to avoid work that would strain the lower back after the injection (39.3%) and the fear that the pain would worsen (37.7%). In our study, the rate of those who reported that a relative had undergone SIPMT and was dissatisfied was 21.3%. This was lower than the rate (40%), in the study by Durdağ et al., of those who reported that a relative or themselves had undergone surgery involving the neurosurgery branch and were dissatisfied. In our study, the fear of recurrence of pain after SIPMT was 55.7%, and the fear of disability was 19.7%. These rates were lower than those reported by Luo et al. in their study of patients who refused spinal surgery. Other common reasons for refusal were tomophobia, refusal to take cortisone, trying traditional and complementary medicine practices, fear of death, fear that the pain would worsen, concern about urinary incontinence and a large bladder, and concern about not being able to continue working after the injection. Only 1 (1.6%) of our patients refused treatment on the grounds that they were not adequately informed about SIPMT.

Our study had several limitations: the sample size was relatively small, all cases were collected from only one center, the survey may not cover all pre-SIPMT patient concerns, and subgroup analysis of reasons for refusal of injection, such as age, gender, occupation, and educational status, were not conducted.

Conclusion

This study emphasizes the concerns of algologists and patients before SIPMT and shows that patients have a wide range of concerns about these procedures. When patients do not properly understand or have the right information about these procedures, they may refuse the treatment due to unnecessary concerns. Providing patients with accurate information about SIPMT, as well as setting realistic expectations, can change their perspective on treatments. Therefore, greater satisfaction after SIPMT can be achieved if we can address the doubts of patients by considering their concerns in a more comprehensive manner.

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