

ATTITUDES OF PATIENTS IN A RURAL AREA AND AN URBAN AREA ABOUT GROIN HERNIA REPAIR

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ABSTRACT:

Purpose: Groin hernia repair is one of the commonest operations in surgical practice. The aim of this study was to find out if there is any difference between patients living in a rural area and those living in an urban area in terms of preferred type of anaesthesia, patients' participation in decision making, and hospitalisation time.

Methods: The records of patients that underwent an elective groin hernia repair between November 2001 and April 2006 were evaluated retrospectively. Preferred type of anaesthesia, hospitalisation time, and participation in the decision making were investigated in patients living in a rural and an urban area, in the northern Black Sea region of Turkey. We also investigated whether the patient's age and sex had any effect on these parameters.

Results: A total of 206 patients underwent elective repair of groin hernia in a State Hospital. Mean postoperative time spent in hospital was significantly longer for patients living in the rural area than for those living in the urban area. The hospitalisation time was longer for male than for female patients. Local anaesthesia was the preferred type of anaesthesia for the elderly. Older patients and villagers mostly preferred the physician to make the final decision about their treatment and they had longer hospital stays.

Conclusion: Mean hospitalisation time was longer for patients living in the rural area and for male patients than for female patients. Younger patients and city dwellers preferred to make their own decision about their treatment and they had shorter hospital stays.

Key Words: Groin Hernia, Hernia Repair, Decision Making, Transportation Facilities

KASIK FITIĞI TAMİRİNDE KIRSAL VE KENTSEL YERLEŞİM YERİNE GÖRE HASTALARIN TUTUMLARI

ÖZ:

Amaç: Kasık fıtığı onarımı en sık yapılan cerrahi uygulamalardan biridir. Bu çalışmanın amacı kırsal ve kentsel yerleşim yerlerinde yaşayan hastalar arasında tercih edilen anestezi yöntemi, hastaların karar verme sürecine katılımı ve hastanede yatma süresi açısından fark olup olmadığının değerlendirilmesidir.

Gereç ve Yöntem: Kasım 2001- Nisan 2006 tarihleri arasında elektif kasık fıtığı onarımı uygulanan 206 hastaya ait veriler retrospektif olarak değerlendirildi. Karadeniz bölgesinde yerel bir hastanede kasık fıtığı nedeniyle ameliyat edilen hastalar ulaşım imkanlarına göre kırsal ve kentsel yerleşim yerinde yaşayanlar olarak 2 gruba ayrıldılar. Bu gruplar arasında tercih edilen anestezi yöntemi, hastanede ameliyat sonrası yatış süresi ve hastaların karar verme sürecine katılımı irdelendi. Aynı zamanda hastaların yaşı ve cinsiyetine göre bu parametreler açısından fark olup olmadığı irdelendi.

Sonuç: Ameliyat sonrası hastanede ortalama yatış süresi kırsal alanda yaşayanlarda ve erkeklerde daha uzundur. Genç hastalar ve şehirli, yaşlılar ve kırsal kesimde yaşayanlara göre seçilecek ameliyat ve anestezi yöntemi konusunda daha çok kendileri karar verme eğiliminde olmuşlardır.

Anahtar Kelimeler: Kasık Fıtığı, Fıtık Onarımı, Karar Verme, Ulaşım Olanakları

INTRODUCTION

In today's health care industry, patients are regarded as consumers who are expected to be involved in decisions about their medical care¹. The many variations of operative techniques for the repair of inguinal hernia reflect the absence of an ideal surgical procedure². An ideal hernia repair method should improve patients' physical well being and also their social and psychological recovery.

Patients' preferences of anaesthesia methods, patients' participation in decision making, and postoperative hospital stay were evaluated retrospectively between patients living in a rural area and those living in an urban area in the northern Black Sea region of Turkey.

METHODS

Between November 2001 and April 2006, 206 patients underwent elective repair of groin hernia by one of the surgeons (KK) at Osmaniye State Hospital. Data collected from hospital records and office records were analysed to evaluate preference of type of anaesthesia used for the repair of groin hernia and postoperative time spent in hospital retrospectively. Preoperative routine laboratory tests were done in the outpatient clinic.

Patients with premorbid conditions were treated preoperatively by specialists. Patients were informed about the different types of anaesthesia and surgical repair methods. The possible complications and benefits of the anaesthesia and repair methods were also discussed with the patients and their relatives. Patient participation was desired in decision making. Informed consent was obtained before surgery. It was noted that some of the patients participated in the decision making while some preferred the decisions to be made by their physicians.

The patients were given midazolam 0.05 mg/kg IM, maximum 5 mg/kg (Dormicum, Roche, Mannheim, Germany) half an hour before surgery for preoperative sedation.

For local anaesthesia, a combination of prilocaine 2% (Citanest, AstraZeneca, Kırklareli, Turkey) and bupivacaine 0.5% (Marcain, AstraZeneca, Kırklareli, Turkey) diluted 1:4 with normal saline was used. Local anaesthesia was administered by the operating surgeon. Combined ilio-inguinal block together with an infiltration procedure was applied as described in the literature.³

Spinal anaesthesia was achieved by injecting 3-3.5 ml of 0.5%

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bupivacaine heavy (Marcain Spinal Heavy, AstraZeneca, Kırklareli, Turkey) using a 25G spinal needle through the L3-L4 intervertebral space.

General anaesthesia was induced with intravenous 2 mg/kg of propofol, followed by atracurium 0.5 mg/kg or vecuronium bromide 0.1 mg/kg to facilitate intubation. Anaesthesia was maintained with sevoflurane (1-2%) and nitrous oxide in oxygen.

The patients operated on under local anaesthesia were allowed to be discharged from hospital on the day of surgery. Other patients, operated under spinal or general anaesthesia, were allowed to be discharged from hospital the day following surgery. Pain killing pills were prescribed to whoever needed them. The patients were re-examined in the outpatient clinic 7 days after the operation.

Statistical Analyses: Descriptive statistics for categorical data were expressed as frequencies (count and percent) and as mean \pm SD for continuous variables. The Kolmogorov-Smirnov test was used for goodness of fit. Relationships between categorical variables were analysed using the chi-square test. The Mann-Whitney U test was used to compare two groups in terms of continuous variables with non-normal data. Three or more groups were compared using Kruskal-Wallis ANOVA and one-way ANOVA. A type 1 error was accepted as 0.05.

RESULTS

Between November 2001 and April 2006, a total of 206 patients underwent elective repair of groin hernia by one of the authors (KK) at Osmancık State Hospital. There were 172 males and 34 females. The male to female ratio was 5.06. The mean age of the patients was 47.30 ± 17.57 years.

The patients were divided into two groups (rural area and urban area) according to the transportation facilities to the hospital. Of the 206 patients, 102 (91 males, and 11 females) were living in the urban area and 104 (81 males and 23 females) in the rural area.

Mean postoperative time spent in hospital was significantly longer (2.12 ± 0.62 days vs. 1.11 ± 0.38 days) for patients living in the rural area than for those living in the urban area ($p < 0.0001$). Male villagers stayed in hospital longer than female villagers (2.12 ± 0.62 and 1.52 ± 0.67 respectively) ($p < 0.0001$). The difference between the sexes was not statistically significant for patients living in the urban area ($p = 0.32$). Patients were discharged when it was considered safe, while some of the patients stayed overnight for social rather than surgical reasons.

Older patients (mean age $64.26 \text{ y} \pm 10.16 \text{ y}$) were mostly operated on under local anaesthesia and younger patients (mean age $36.27 \text{ y} \pm 12.74 \text{ y}$) were mostly operated on under regional anaesthesia. The preference of anaesthesia type differed significantly between the age groups.

Most of the villagers (79.6%) preferred treatment decisions, including anaesthesia type, to be made by their physi-

ans. About half of the patients (55.7%) living in the urban area participated in their treatment.

DISCUSSION

Patients' participation in their treatment is a desired process in Turkey⁴. The Turkish parliament declared in 1998 that all the patients have the right to be informed about the nature of the surgery, expected postoperative course, and the natural course of the disease if they are not operated on^{4,5}. The WHO has stated that patient involvement in health care is not only desirable but a social, economic, and legal necessity⁶. The goal of patients' participation is to enable them to make medical care decisions that reflect their values and desires⁵. There is a strong emphasis on patients' understanding of surgical procedures, risks, benefits, and alternative therapies⁷. The choices offered to the patient must be both legitimate and valuable^{4,8}. For the ethical quality of the communication and patients' participation, giving information and ensuring patient understanding are time consuming processes. It is also necessary to create a secure and friendly atmosphere for the patients⁷.

Outpatient treatment modalities have been chosen for patients that are appropriate both medically and legally^{9,10}. Economic considerations are a major determining factor of the recommendations¹¹. Personal experience of the surgeon is an independent variable for recommending any surgical procedure^{12,13}. Other factors include the patients' age, education, cultural facts, and psychosocial factors¹⁴. The acceptance of destiny in Muslim belief affects patients' behaviour. These effects are more prominent in people who live in rural areas.

The relationship between doctor and patient was based upon two criteria; on the one hand, the professional duty of the physician to do what is the best for the patient and, on the other, the duty of the patient to completely accept the physicians' decisions and interventions¹⁴. Patients' preferences concerning decision making and receiving information have been changing in recent decades^{14,15}. Some patients want all the information, but prefer the physician to make the final decision^{16,17}. Some prefer to make their own decision¹⁸. In our study, older patients and villagers mostly (79.6%) preferred the physician to make the final decision concerning their treatment. More than half (55.7%) of the younger patients and the city dwellers preferred to make their own decision. The difference is statistically significant according to the chi-square test ($p < 0.0001$). The culture and traditions in this country affect patients' perception of the physician, especially in rural areas.

Some studies showed that a patient who was afraid of pain during surgical intervention chose general or regional anaesthesia¹⁹. Adequate information about the treatment and psychogenic and medical support against postoperative pain encourages the patient to participate in decision making. Our study revealed that younger patients with the mean age 36.27 years were operated on under regional anaesthesia. Older patients with the mean age of 64.26 y were operated on under local anaesthesia. The difference between these age groups is

statistically significant ($p < 0.0001$) Regional anaesthesia was the preferred method for younger patients, whereas local anaesthesia was preferred by the older patients.

Patients coming from the rural area had significantly longer hospital stays than those living in the urban area. Transportation opportunities and the anxiety regarding the undesirable conditions following discharge from hospital affect length of hospital stay postoperatively. Female patients coming from the rural area had a shorter postoperative time spent in hospital than males. The greater role and greater responsibilities of the female in the household lead to shorter hospital stays. Patients that had accurate and adequate information and medical support about their treatment experience less anxiety about the potential risk or complications. This increases patient's participation in the treatment^{15,20,21}. Patient's age, general anaesthesia, and pain are factors causing prolonged hospitalisation¹⁰.

People in Turkey usually leave making the final decision to doctors on issues concerning the patient due to a paternalist attitude and the confidence placed in doctors in this country. In addition, the religious belief in fate dampens the initiative of the patient on such issues²².

A full explanation of the facts allows patients to make a fully informed decision and participate^{15,21}. Economic considerations and patient intensity are important factors affecting surgical treatment^{11,13}. Adequate information of the patients about surgical treatment and possible inadvertent events decreases patients' anxiety and increases patients' participation. Transportation facilities, type of anaesthesia, and fear of postoperative complications lead to longer postoperative hospital stays. Patient's participation in decision making varies according to the patient's place of accommodation, age, and sex. More detailed studies are needed to define the effect of education.

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