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Anxiety in candidates for radical prostatectomy in a university hospital

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SUMMARY

OBJECTIVE: Metabolic changes caused by anxiety can interfere in both the surgery itself and the recovery process. One way to reassure the patient is to clarify how the procedure will be performed and discuss the possible complications. This study aimed to investigate the anxiety level of candidates for radical prostatectomy at a university hospital.

METHODS: Thirty-four patients with a diagnosis of prostate cancer were studied prospectively. Data collection involved the administration of the Hospital Anxiety and Depression Scale and a radical prostatectomy knowledge test.

RESULTS: The results showed that 94.1% of the patients reported having received clarifications from the physician or healthcare team regarding the surgery and 23.5% reported having received information on the probability of a medical error during surgery. The most cited postoperative complications were sexual impotence and urinary incontinence. A significant association was found between the total Hospital Anxiety and Depression Scale score and the complications cited (p=0.0004); patients who marked a larger number of possible complications had a higher Hospital Anxiety and Depression Scale score.

CONCLUSION: The present study demonstrates that the explanations given by the multidisciplinary health team are not achieving their maximum potential in terms of lowering patient anxiety.

KEYWORDS: Anxiet. Prostatic neoplasms. Prostatectomy.

INTRODUCTION

Prostate cancer is the most prevalent neoplasm in men and is considered the second most common type of cancer in the male population throughout the world[1]. The most recommended treatment option is radical prostatectomy, which consists of the complete resection of the prostate gland, including the prostatic urethra, seminal vesicles, and ductus deferens, and may also include bilateral lymphadenectomy[2], which is the gold standard for the treatment of localized prostate cancer[3]. This surgery can have undesirable effects in the postoperative period that exert a negative impact on quality of life[4]. Such consequences include erectile dysfunction, infertility, and urinary incontinence; moreover, the condition can be fatal or may recur[1]. Facing this danger, patients elected for this surgical procedure often anticipate a vague, unknown threat of the possible negative consequences due to a lack of information[5], which can generate potentially negative feelings[6], such as an objectless fear that is manifested in the form of anxiety.

Anxiety is an emotional reaction that is essential to survival, as it prepares an individual for either fight or flight[7]. This feeling stimulates the central nervous system to secrete neurotransmitters (catecholamines)[8] that have several metabolic effects.

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Anxiety has been associated with physiopathological responses, such as hypertension, arrhythmia, an increased heart rate, a diminished immune response, diminished tissue healing, and other consequences that are favorable to an individual in danger, but can increase the occurrence of morbidity in the perioperative period[9] by promoting more intense bleeding during surgery or possible infection at the incision site. Therefore, the expectations of patients awaiting surgery, such as the fear of anesthesia, disability, and even death, can interfere with the course of the surgery itself as well as the recovery process[5].

Considering the impact of anxiety on surgical procedures, such as prostatectomy, it is fundamental to know the main anxiogenic triggers in order to prevent such factors and avoid surgical complications. One of the triggering factors most widely known in the scientific community is the lack of clarification patients have regarding the procedures their bodies will undergo during hospitalization[6-10]. It is therefore common for healthcare providers to offer a brief explanation to the patients regarding the disease and how the surgery will be performed. The purpose is to quell doubts and diminish negative expectations related to the procedure[11]. However, there is a lack of empirical studies and quantitative data on this issue. What the patient grasps from conversations with the physician, the extent to which healthcare providers efficiently transmit their knowledge, and how much a patient needs to know about the surgery are issues that have not been duly investigated. Therefore, this study aimed to investigate the level of anxiety in candidates for radical prostatectomy at a university hospital and the knowledge they have regarding the procedure.

METHODS

A quasi-randomized (order of arrival), prospective, cross-sectional study was conducted involving 34 patients with a diagnosis of prostate cancer scheduled for surgical treatment at a urologic oncology service of a tertiary hospital in the State of São Paulo, Brazil, between August 2019 and May 2020. The exclusion criterion was a lack of understanding of the subject.

This study received approval from the Human Research Ethics Committee of the institution (certificate number: 1247119.0.00005415). All patients received clarifications regarding the objectives and importance of the study and those who agreed to participate signed a statement of informed consent. Data collection involved the administration of the Hospital Anxiety and Depression Scale (HADS) and a radical prostatectomy knowledge test.

The HADS was developed to be applied to non-psychiatric patients at a general hospital[12,13] and was used in the present study to determine the degree of patient anxiety. One day before the surgical procedure, the patient was instructed to answer the questions using the previous week as a reference. The HADS has 14 multiple-choice questions and two subscales – one addressing anxiety and one addressing depression. The score of each subscale ranges from 0 to 21 points. Patients with a score of 0 to 7 points were classified as "not anxious", those with a score of 7 to 12 points were classified as "possible anxious", and those with a score of 12 to 21 points were classified as "probably anxious". The anxiety subscale of the HADS has 93.7% sensitivity and 84.6% specificity[12,13].

The purpose of the radical prostatectomy knowledge test was to ascertain the patient's general knowledge regarding the procedure to which he would be submitted. This questionnaire was developed by the authors of the present study and has 14 multiple-choice questions.

Statistical analysis

Data analysis was performed with the aid of the Excel 2010 and Biostat 5.1 computational programs. The data were described using means and frequencies (absolute and relative). Pearson's and Spearman's correlation coefficients were calculated for the correlation analysis. The chi-square test was used to determine associations between the state of anxiety (HADS score) and questions on the radical prostatectomy knowledge test. The level of significance was set to 5% ($p<0.05$).

RESULTS

Thirty-four men scheduled for the surgical treatment of prostate cancer participated in the present study. Based on the results of the HADS questionnaire, 14.7% expressed being fearful; 20.6% spent most of the time with worrying thoughts; 32.4% reported feeling restless; and, 23.5% reported feeling tense or wound up most of the time in the previous week.

Regarding knowledge of the procedure, 94.1% of the patients reported having received clarifications from the physician or healthcare team regarding the surgery; 91.2% reported that the prostate would be removed and 8.8% responded that the prostate and seminal vesicles would be removed. The majority (64.7%) reported that the surgical incision would be made in the lower portion of the abdomen. Regarding for whom such surgery is indicated, the majority (62.5%) stated that the procedure is suggested for patients with localized cancer and a life expectancy of more than 10 years, 9.4% stated that the surgery was indicated for individuals in a very advanced stage of the disease, and 3.1% did not offer an answer. A total of 61.8% stated that they would not be awake during surgery and 8.8% stated that they would be awake. Regarding the duration of surgery, 61.8% believed that it would last two to three hours.

A total of 23.5% reported having received information on the probability of a medical error during surgery. Regarding postoperative complications, 47.1% of the patients stated the possibility of sexual impotence. When asked about the possibility of urinary incontinence, 38.2% stated that the likelihood was low and 35.3% stated that the likelihood was moderate (Figure 1). Regarding urinating normally after surgery, 50% stated that this would occur in around two weeks, 11.8% stated that they would not need a catheter and would urinate normally immediately after the removal of the urinary catheter. When asked to mark the possible complications related to surgery, 55.9% marked hemorrhage as a possible danger and 44.1% marked sexual impotence. Regarding what would occur if surgery were not performed on someone with prostate cancer elected for radical prostatectomy, 64.7% answered that their cancer would continue to exist, could attack other sites, and, placed the general health of the patient at risk and 8.8% stated that their cancer would disappear on its own at some point. A total of 38.2% reported that recurrence is possible.

In the present study, 73.5% of the patients exhibited manifestations of anxiety and 47% demonstrated signs of panic one week before radical prostatectomy (Figure 2).

Approximately one-third of the interviewees stated that there is no chance of the surgeon making a mistake during the medical procedure (Figure 3).

A moderate, directly proportional correlation (rs=0.5713) was found between the total HADS score and complications cited, as individuals who marked a greater number of complications had higher HADS scores. This correlation was considered statistically significant (p=0.0004). A weak inversely proportional correlation was found between the score on the radical prostatectomy knowledge test and the score on the anxiety subscale of the HADS (r=-0.4057, Pearson's correlation). Despite being weak, this correlation was statistically significant (p=0.0261).

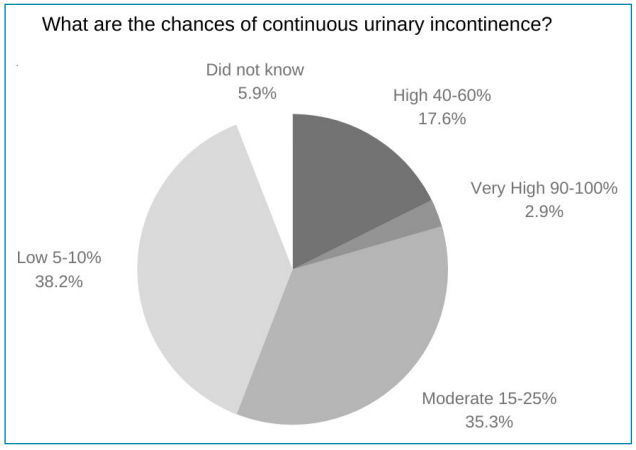

Figure 1. Chances of continuous urinary incontinence.

DISCUSSION

In the present study, the majority of the patients exhibited manifestations of anxiety and demonstrated signs of panic one week before radical prostatectomy. The findings suggest that this surgery is terrifying for most patients. Moreover, 75% exhibited some degree of fear and 75% reported worry related to the surgical procedure or the recovery process.

No significant association was found between the technical details of the surgical procedure and the level of anxiety. This finding diverges from data described in previous studies[14-17], in which receiving information regarding the surgery was able to diminish stress and the level of anxiety by making the procedure less worrisome to the patient[18]. This divergence may be related to the sample size in the present investigation.

Approximately one-third of the participants informed that there is no chance of the surgeon making a mistake during the surgical procedure. This finding suggests a certain degree of naivety on the part of the patients but reveals the level of

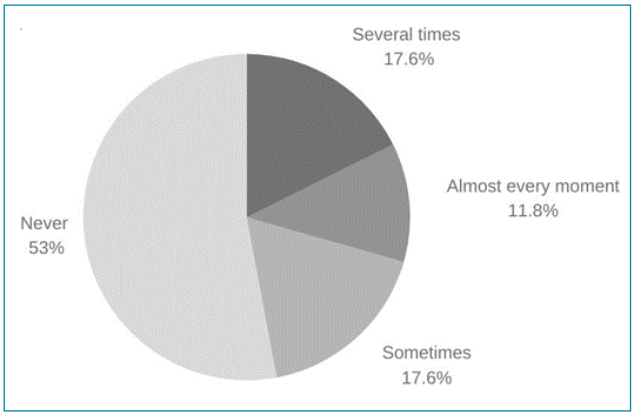

Figure 2. Signs of panic one week prior to radical prostatectomy.

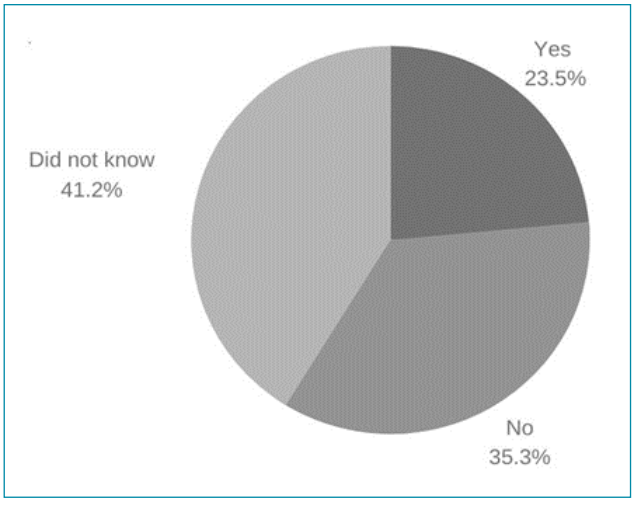

Figure 3. Chance of the surgeon making a mistake during the surgery.

confidence they have in the surgeon and the surgical procedure. Indeed, the amount of knowledge that patients believed to have regarding the operation was important to diminishing anxiety[19], despite the low correlation. Thus, the confidence patients have in the procedure, the medical team, and themselves diminished the degree of stress related to the surgery.

Postoperative complications generated greater concern. Urinary incontinence is one of the most feared sequelae of radical prostatectomy. Although the incidence of urinary incontinence related to this surgical procedure is low[4], approximately two-thirds of patients believed that the likelihood of its occurrence was moderate to very high, which is inconsistent with the literature[20]. Another feared complication is sexual impotence, mentioned by one-third of the patients as highly to very highly probable. These findings suggest miscommunication between the healthcare team and patients, as patients may not be receiving or grasping information that they actually would like to know[21].

The strongest correlation found in the present was the degree of anxiety and the number of perioperative complications cited by the patients, as patients with greater knowledge on the complications involving surgery had a higher HADS score. It is possible that this association may occur because previously anxious patients are prone to misunderstand information offered by the healthcare team[22]. Thus, rather than understand that a given complication is possible, the individual internalizes the information as if the complication will actually occur[23,24]. It is therefore important for the healthcare team to identify anxious patients in the preoperative period before offering details regarding the procedure to quell doubts and enable the information to be truly beneficial.

CONCLUSIONS

The present study demonstrated that explanations given by the healthcare team of the university hospital to patients are not achieving their maximum potential in terms of lowering patient anxiety. Thus, such information should be complemented with other forms of communication that can contribute towards greater clarification regarding the radical prostatectomy, thereby reassuring the patient.

AUTHORS' CONTRIBUTIONS

MDNSOF: Conceptualization, Data Curation, Writing – Original Draft, Writing – Review & Editing. **LCFS:** Conceptualization, Data Curation, Writing – Original Draft, Writing – Review & Editing. **FNFJ:** Conceptualization, Data Curation, Writing – Original Draft, Writing – Review & Editing.

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