Does clarifyng the digital rectal examination to the elderly reduce the discomfort in its first execution?

Esclarecer o idoso sobre o exame digital retal diminui o desconforto na sua primeira realização?

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A B S T R A C T

Objective: To assess the degree of discomfort reported by elderly men when first submitted to digital rectal examination (DRE) in the prevention of prostate cancer and the effect of previous explanations on this complaint. **Methods**: A prospective, randomized study in 120 men aged 60 to 80 years, divided into two groups: group A (routine medical appointment) and group B (medical appointment with educational intervention). In group B, the information tools were informal talk with explanations of DRE and prostate cancer, visualization of model of the male pelvis and the anatomical relations with the prostate, DRE simulator and DVD with three-dimensional animation of the pelvic organs. The degree of discomfort was measured by visual scale of pain. We used the chi-square test, with significance at 0.05. **Results**: There were significant differences between the degree of discomfort mentioned in DRE between the two groups; 81% of group B reported it as mild, while 80% of group A referred it as moderate or intense, with significant p=0.01. The signs and symptoms were the main reason for consultation in 35% of patients; 78% went to be consulted alone and 81% commented on their own examination with their spouses. With no statistical difference, 94.2% in group A and 97.8% in group B repeated the examination the following year and 91.6% in group A and 96.6% in group B reported that the exam was not worse than imagined. All would recommend DRE for relatives or friends. **Conclusion**: Patients who did the first DRE after urological consultation with prior educational clarification on the issue reported significantly less discomfort.

Key words: Men's health. Aged. Prostatic neoplasms /prevention and control. Digital rectal examination.

INTRODUCTION

Men still hold prejudices related to digital rectal examination (DRE). Despite recent campaigns promoted by the Brazilian Society of Urology (SBU) and the National Cancer Institute (INCA), fear and disinformation collaborate for prostatic diseases to continue to be a serious health problem[1].

It was estimated that 52,350 Brazilian men died from prostate cancer in 2010. This disease prevails in elderly men and 75% of the affected have more than 65 years[2]. In opposition to these uncomfortable estimates, between 70% and 98% of patients are now cured when the disease is detected early, with the tumor still confined to the limits of the gland[3].

The DRE is quick, inexpensive and easy to perform, allowing to assess the dimensions, shape and boundaries of the prostate, as well as the presence of deformities, bulging, changes in the consistency and mobility of the gland. By informing the patient about the prostate and providing reassurance when performing the DRE, the urologist spreads the importance of urological consultation and strengthens the bond of doctor-patient relationship. The patient should be informed about the purpose of the exam, which generates enormous comfort when no hard lumps or irregularities are detected[4].

A survey by SBU in 10 Brazilian capitals, with 1061 men between 40 and 70 years of age, showed that 76% of them said they had no knowledge of the importance of DRE for the detection of prostate cancer. Only 32% have already confirmed having been submitted to this procedure, and television, especially the open channels, was the main source of information on prostate health for half of them[5].

An alleged cultural bias explains why most men resist DRE, considered an aggression to their manhood. On the other hand, most patients who have undergone the examination accept to repeat it without restrictions[6].

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The current work is justified by the lack of information in our midst on the discomfort referred to in the first DRE to which elderly men are submitted for prevention of prostate cancer. Therefore, we aimed at verifying the degree of discomfort when performing the first examination and the beneficial effect on this complaint of prior educational clarification.

METHODS

It was a comparative, prospective, randomized, study conducted from January 2010 to February 2011. The sample consisted of 120 elderly patients aged 60 to 80 years, consecutively treated by the same urologist in the outpatient Urology facilities of the Gama Regional Hospital (GRH), Federal District, Brazil. Inclusion criteria were: not having been previously submitted to DRE and having signed an informed consent; the exclusion criteria were: having diabetes, urogenital infection, history of anorectal disease or surgery, mental or cognition disorders, being in use of psychotropic, sedative-analgesic therapies or using a long-term vesical catheter.

Two groups were formed: control group (group A), consisting of 60 patients undergoing routine urological consultation of 15 minutes, and intervention group (group B), of 60 patients undergoing detailed consultation with verbal and visual explanations on DRE and prostate cancer. Initially, to verify the degree of cognition in all patients we applied the Mini Mental Test[7] using the cutoff point according to education (in years of school attendance)[8]. The following clinical and demographic data were collected: age, ethnicity, marital status, education, pensions, minimum wage, family history of prostate of breast cancer, sexual preference, sexual activivity and presence of erectile dysfunction. We also performed urine analysis, urine and sperm cultures, measurement of PSA and prostate ultrasonography. Before consultation, all patients were questioned about the reasons for coming to the hospital and if they had come with relatives. After performing the DRE, they were asked if they would have this test repeated in the coming years, recommend it to relatives or friends and if it had been worse than they imagined.

In group B, was provided further education in the form of interactive informal talk given by the principal investigator, lasting 50 minutes, during which the position adopted for the implementation of the exam was anticipated and explained. After the talk, these patients had access for 30 minutes to a model of the prostate and its diseases, a model of the male pelvis, the digital rectal exam simulator and the DVD Virtual Human Project, with which active participation was stimulated. The simulator is a useful model to define the size and consistency of the prostate, a tool for training physicians and medical students in performing the DRE[9]. The Virtual Human Project provides modern equipment for educational purposes through interactive media, with fundamentals of anatomy, physiology, pathology and the most common operations of the male pelvis are presented in 3-D developed by computer graphics[10].

The DRE was performed at another clinic, with the patient adopting the lithotomy position and being pre-lubricated with petroleum jelly. After the examination, another urologist asked about the degree of post-test discomfort, using the visual scale of pain, in which: 0-2 is considered mild discomfort, 3-7 moderate and 8-10 severe [11].

Statistical analysis was performed using the chi-square test, considering as significant p-value d"0.05. Some of the results are presented as mean and standard deviation.

The study was submitted to the Ethics Committee in Research of Faculdades Integradas do Planalto Central, Federal District, and approved by the opinion No. 13/2010.

RESULTS

There were no sample losses. The analysis of clinical and demographic data showed no significant differences between groups A and B (Table 1). Microscopic hematuria was present in 5 (8.3%) patients in group A and three (5.0%) in group B (p = 0.09). Among these patients, 1 (0.8%) had a giant renal cyst and another was diagnosed with localized kidney cancer. The other patients were classified as having idiopathic hematuria.

As to the reason for the visit in groups A and B, urological signs and symptoms predominated in 35% of patients, spontaneous demand occurring in 33%, family request in 17% and referral by a doctor in 7%. The search for the urologist was caused by urinary complaints in 89.1% of patients.

Most men went alone for consultation (78%). When accompanied, the majority were brought by the wife (45%), the daughter (30%) or son (25%), with no significant difference between groups (p = 0.85).

The mean degree of discomfort of DRE in group A was 5.06 and 1.31 in group B, with significant difference (p = 0.02). In group A, 15% of respondents reported discomfort scores of 0, while 6.6% reported a score 10. In group B, 36.6% of respondents reported score 0 and no patient reported score 10.

Figure 1 shows the stratification of the discomfort as mild, moderate and severe in both groups. In group A, 80% of patients reported the discomfort as moderate and intense, whereas in group B the discomfort was reported as mild in 81%, with significant difference (p = 0.01).

The 120 patients would recommend DRE for relatives or friends. Regarding the re-examination in the coming years, no significant difference emerged between the responses of groups A (94.2%) and B (97.8%) (Figure 2).

Table 1 - Clinical and demographic data of the 120 elderly patients studied in groups A (control) and B (intervention), by GRH, 2010-2011.

Variables	Group A		Grup B		P
Age (years)	63.7	(60-78)	61.2	(60-80)	0.09
Ethnicity					
White	20		17		0.08
Brown	30		28		0.09
Black	10		15		0.09
Marital Status					
Married	30		28		0.07
Non-married	30		32		0.07
Schooling					
Illiterate	10		12		0.09
Literate	50		48		0.09
RETIREES	48		50		0.08
MINIMUM WAGE	1.3 ± 0.6		1.7 ± 0.1*		0.07
Family History					
Prostate Cancer	6		7		0.09
Breast Cancer	2		3		0.09
Sexual Preference					
Hetero	60		59		0.09
Homo	0		1		0.10
Bisexual	0		0		*
ACTIVE SEX LIFE	40		37		0.09
ERECTILE DYSFUNCTION	34		36		0.08
MICROSCOPIC HEMATURIA	5		3		0.08
PROSTATE ULTRASOUND () g	23.5	(12-84)	30	(10-110)**	0.08
PSA (ng/ml)	2.3	(0.3-11)	2.8	(0.4-40) **	0.07

** standard deviation*
*** average*

When asked if the DRE was worse than imagined, in group A 91.6% said it was not, as did 96.6% of individuals of group B, also without significant difference between the groups (Figure 3).

DISCUSSION

In this study, the attending of the lecture and the active participation in the presentation of iconographic resources contributed significantly to reduce the degree of discomfort during the first DRE. Regarding discomfort, the intervention group received the average score of 1.31, against 5.06 in the control group, with significant difference, confirming the positive impact of previous explanations.

The score of 5.06 on the visual scale in the DRE group that underwent routine urological consultation was considered high and is comparable to that obtained in patients with osteo-muscular pain, considered of moderate intensity and requiring, among other measures, the use of weak opioids for proper management[11]. In this context, it fits not only the physical discomfort, but surely the psychological impact of DRE. This exam is a practice that may raise a man's fear of being touched on "the bottom". Being linked with the act of penetration, it may be associated with pain, both physical and symbolic. By the hegemonic model of masculinity, man is created as a child to have the anal region as a forbidden place. The rectal exam would imply a violation to that, rendering an idea of passiveness and a breach in manhood[12].

In this study, urological symptoms and signs predominated among the reasons for consultation, in 35% of patients, followed by spontaneous demand in 33% and medical referral in 24%; only 19.1% of patients were asymptomatic from the urinary tract standpoint. An epidemiological study in São Paulo with 1915 patients with prostate cancer showed the following reasons for them to seek the urologist: medical referral in 38%; spontaneous in 31%; urological signs and symptoms in 15%; public or private campaigning in 12%; recommendation of family and unanswered, 2% each. In the current study, the active search for outpatient treatment occurred predominantly in patients with curative intent, due in part to the difficulty in booking appointments for this needy population studied, from the periphery of the

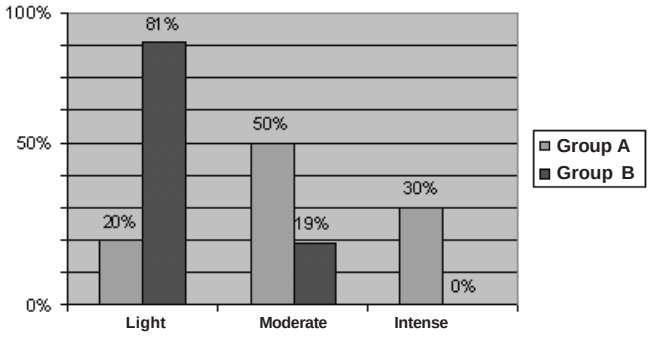

Figure 1 - *Stratification of the degree of discomfort between light, moderate and intense that during the first DRE in the 120 studied elderly patients in groups A (control) and B (intervention), GRH, 2010-2011.*

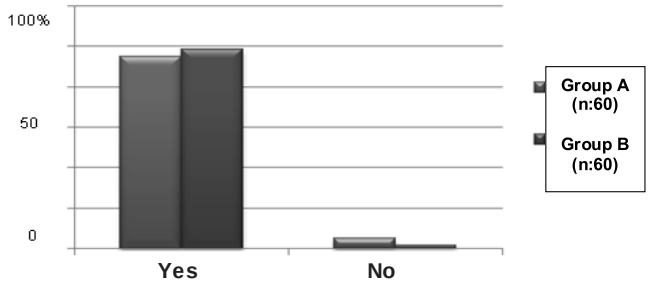

Figure 2 - *Responses to the question "Would you repeat the DRE in the coming years" of the 120 elderly patients studied in group A (control) and B (intervention), GRH, 2010-2011.*

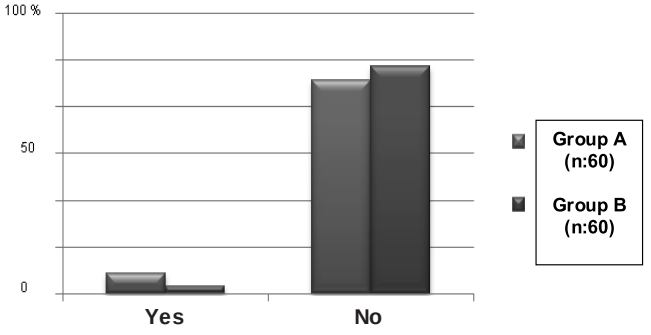

Figure 3 - *Answers to the question "Was the test worse than you imagined?" of the 120 studied elderly patients in groups A (control) and B (intervention), GRH, 2010-2011.*

Federal District. This may have contributed to the high score found in the control group, which was not clarified about the exam. It is important to note that all patients examined were late in having the first visit in at least 15 to 20 years, according to the SBU[13].

A Brazilian study involving 269 patients in an institutional program to detect prostate cancer in men over 45 years revealed that the negative expectation before the test changed significantly after its performance, finding a score of 1.69 on a visual scale of pain, with 98.1% of individuals intending to return in the next years[14]. The latter finding is in agreement with ours, given that, of the 120 patients studied in the current study, 96.5% would return in subsequent years.

In the present study, 94.1% of patients, regardless of which group they belonged to, said they had not found the exam too bad. The lesser degree of discomfort mentioned in the intervention group was probably due to the previous explanations and exposure of iconographic resources provided by the urologist. The value of the doctor-patient relationship should be emphasized, which occurred in greater depth and time in the intervention group. This fact was confirmed by the discomfort being predominantly mild in group B (81%), whereas moderate to intense in group A (80%) with significant difference (p=0.01).

Even with the high discomfort score for DRE, patients in the control group stated that they did not find the test too bad. This probably occurred because of the contradictory perceptions of the elderly Brazilian man that the DRE is bad, realizing that this test is not as uncomfortable as one can imagine after its first occurrence. The prejudice and ignorance of the subject contribute greatly to this expectation.

A Research from Unicamp showed that 60% of men found the DRE better than imagined, and 7% found it worse than expected, and 90% were willing to have it repeated on a regular basis. In this study, no difference in behavior emerged in relation to DRE in the various social, educational and economic strata[15]. Another interesting finding of this study is that 60% of men who first sought the urologist for prostate checkup were brought by third parties, mainly female, i.e., daughters or spouses. In the current study, of the 26 patients who came accompanied for consultation, 75% came with their wives or daughters, the former predominating. Among the 100 patients who had wives, 81% talked about the exam with them, all of the spouses displaying a favorable reaction to the realization of the DRE. Likewise, the DRE was recommended to family and friends in all 120 patients.

Medical technology may prompt physicians to underestimate the value of semiology, the EDR being a form of recovery of the classical physical examination, reinforcing the doctor-patient relationship. The explanations provided by the physician are irreplaceable, leading to quick overcoming of the stigma of DRE from the first examination and allowing its routine recurrence in subsequent years.

In the current study, we conclude that the DRE discomfort can be significantly reduced by collective actions, such as lectures to the audience and clarifications in the pre-test, using modern iconographic features. It is suggested that authorities and health professionals, after the institution of the National Men's Health in 2009, especially urologists, encourage the implementation of the DRE, establishing the

use of prior clarification as one of the proposals to reduce its discomfort. Future research should assess the psychological or symbolic distress of DRE, as well as the reason for which Brazilian men do not seek medical attention to undergo urologic evaluation in earlier times, in order to detect prostate cancer at early stages.

R E S U M O

Objetivo: *Verificar o grau de desconforto referido por homens idosos que realizam pela primeira vez o exame digital retal (EDR) na prevenção do câncer de próstata e o efeito de esclarecimentos prévios sobre essa queixa.* ***Métodos:*** *Estudo prospectivo e aleatório em 120 homens, com idade de 60 a 80 anos, distribuídos em dois grupos: grupo A (consulta médica rotineira) e grupo B (consulta médica com intervenção educativa). No grupo B, os instrumentos de informação foram: palestra informal com esclarecimentos sobre EDR e câncer de próstata, visualização de maquete da pelve masculina, mostruário com as relações anatômicas prostáticas, simulador do EDR e DVD com animação tridimensional dos órgãos pélvicos. O grau de desconforto foi medido através da escala visual de dor. Utilizou-se o teste do qui-quadrado, com significância de 0,05.* ***Resultados:*** *Houve diferença significativa entre o grau de desconforto referido no EDR entre os dois grupos, 81% do grupo B referiram-no como leve e 80% do grupo A, como moderado ou intenso, com p significativo de 0,01. Os sinais e sintomas foram a principal razão da consulta em 35% dos pacientes, 78% foram à consulta sozinhos e 81% comentaram o exame com a parceira. Sem diferença estatística, 94,2% no grupo A e 97,8% no grupo B repetiriam o exame no ano seguinte e 91,6% no grupo A e 96,6% no grupo B relataram que o exame não foi pior do que imaginavam. Todos recomendariam o EDR para parentes ou amigos.* ***Conclusão:*** *Os pacientes que fizeram o EDR pela primeira vez após consulta urológica com esclarecimentos educativos prévios sobre o tema referiram significativamente menor desconforto.*

Descritores: *Saúde do homem. Idoso. Neoplasias da próstata / Prevenção e controle. Exame digital retal.*

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