



Patients' reactions to digital rectal examination of the prostate

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Abstract

Background: Digital rectal examination (DRE) of the prostate is a simple, fast, cost effective and safe procedure, however, because of previous painful experience, some men may refuse it. Other negative factors include cultural barriers, fear of discovering cancer and embarrassments. However, some men accept DRE because of their symptoms and wishes to contribute to science. The aim of this study was to examine how previous experience of DRE could influence a repeat and to further evaluate their impression before and after DRE including pain score.

Patients and Methods: We evaluated one hundred patients who met the inclusion criteria using a structured questionnaire that detailed information on patients biodata, their previous DRE experiences, expectations before and reactions after a repeat. Pain score was also examined using visual analog scale of 0 to 10. Data were collated and analysed using statistical package for social sciences (SPSS) version 20.0. P-value was set at <0.05.

Results: Mean age of patients was 64.88 ± 7.53 years ranging from 46 to 82 years. Forty five percent of them complained of pain from previous DRE while 55% reported no pain. Forty one percent of the men anticipated pain before this present procedure but only 8% of them reported that it was painful and humiliating after the procedure. Fifty nine percent had good impression before DRE and after the procedure 92% reported good impression. All patients expressed their willingness to repeat DRE in future if need be and to encourage friends who may need DRE evaluation of their condition. Mean pain score was 0.59 ± 1.349 (0–9).

Conclusion: Patients previous experience of DRE could negatively influence a repeat procedure because of pain, improper counseling apart from some cultural barriers. DRE in the hands of Urologists has been better tolerated than other clinicians. This calls for proper exposure of medical students to this procedure and need for continuous medical education for other clinicians for skills improvement.

Keywords: Digital rectal examination, prostate

Introduction

Digital rectal examination (DRE) is one of the earliest tools for evaluation of patients with prostatic diseases aside from other anorectal conditions. It is simple, fast, cost effective and safe

although patients may feel some discomforts or pain. The benefits of DRE in patients with prostatic diseases include detection of prostate cancer (Pca), but its sensitivity increases when findings are collaborated with serum prostate specific antigen (PSA) assay.¹ The value of DRE in population screening for Pca has been full of controversies bothering on the fact that this procedure may not lower the morbidity and mortality rate.² However, many clinicians consider screening of the population at risk because of the frequency of the disease and the possibility of detecting an early

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disease that is amendable to cure. Men refuse DRE on account of discomfort, embarrassment, fear of detecting cancer, association with homosexuality, but others readily accept the procedure because of their symptoms and their wishes to make contributions to science.³ In the above study,³ about half of the men imagined that the procedure will be painful, humiliating and bothersome but after the examination, a greater number of them expressed good impression about DRE. Furthermore, 98% of them agreed to repeat the examination annually. This underscores the importance of proper counseling of patients prior to performing DRE making sure that every step is explained to them. Of utmost importance also is the need to probe into past DRE experiences which could lead to some resistances during a repeat examination. The objectives of this study were to:

- (i) Evaluate patients’ previous DRE experiences and their examiners.
- (ii) Evaluate expectations before and reactions after the examination.
- (iii) Define the level of compliance to future examinations and wishes to encourage a friend who may need DRE.
- (iv) Analyze the level of pain felt.

Patients and Methods

This was a prospective study conducted in the Urology clinic of our hospital between October 2020 and June 2021. A total of one hundred (100) patients met the inclusion criteria and were selected to complete the questionnaire after DRE. All patients were interviewed by residents under the supervision of a urologist. DRE was performed by same urologist. Exclusion criteria were patients with clinical or laboratory evidence of prostatitis, painful anal conditions, including anal fissure, thrombosed haemorrhoids, anorectal abscess or tumour, prior anal surgery and those who had never had a DRE before. The questionnaire detailed patient’s demographic data and consists of six sections with options to tick. The first section

examines past DRE experiences and the examiner. Next section seeks to examine how such experiences could influence a repeat procedure and their reactions after the present DRE. Another section examines patient willingness to undergo a repeat examination in future based on current experience and whether each of them will encourage a friend that needs DRE to submit to it? Then they were asked to rate the level of pain using visual analog scale (VAS) which scores pain from 0 to 10 (0 = No pain, 10 = maximal pain). Impression about DRE was classified according to the answer about the expectations before and reactions about DRE. Those who reported normal (Not painful) or not comfortable were deemed to have good impression and those who reported painful or humiliating experience were said to have bad impression about the procedure. Impact of discomfort or pain on potential future examination was expressed as categorical variables (Yes or No). Before DRE was done, patients were duly informed of the procedure; its benefits and that it is not a completely painless procedure. Patient’s position during the examination was explained and all of them who met the inclusion criteria gave their consents. They were examined in the left lateral position with the right lower limb flexed at both the hip and knee joints with extension of the left lower limb. With the gloved hand of the examiner and with the right index finger well lubricated, the buttocks were parted and a thorough inspection of the anal verge done for visible anorectal anomalies or signs. Then DRE was performed. Patients were then made to answer all the questions in the questionnaire.

Statistical Analysis: All data from the questionnaire were entered into spread sheets and analysed using the statistical package for social sciences (SPSS) version 20.0. Frequency of categorical variables was done and further analyzed using Chi squared test. Statistical significance was considered at P<0.05. Means and standard deviations were calculated for continuous variables.

Table 1: descriptive Statistics for continuous variable

Variable	Mean	Std	Min	Max
Age (years)	64.88	+7.532	46	82
Pain scores	0.59	+1.349	0	5
Age (painful)	63.87	+7.589	P>0.05	
Age (Not painful)	65.71	+7.459		

Table 2: Frequency of categorical variables

Variable	Frequency	Valid %	Cumulative %
(i) Age (years)			
40 – 49	2	2.0	2.0
50 – 59	19	19.0	21.0
60 – 69	49	49.0	70.0
70 – 79	28	28.0	98.0
80 – 89	2	2.0	100.0
Total	100	100.0	
(ii) Previous DRE experience			
Painful	45	45.0	45.0
Not painful	55	55.0	100.0
Total	100	100.0	
(iii) Previous DRE Examiners			
General practitioners	25	25.0	25.0
Urologists	58	58.0	83.0
Other Specialist Clinicians	17	17.0	100.0
Total	100	100.0	
(iii) Patients' expectations before this DRE			
Painful	41	41.0	41.0
Humiliating	0	0.0	41.0
Not Comfortable	7	7.0	48.0
Normal	52	52.0	100.0
Total	100	100.0	
(v) Impression before DRE			
Good	59	59.0	59.0
Bad	41	41.0	100.0
Total	100	100.0	
(vi) Patients' reactions after this present DRE			
Painful	7	7.0	7.0
Humiliating	1	1.0	8.0
Not comfortable	18	18.0	26.0
Normal	74	74.0	100.0
Total	100	100.0	
(vii) Impression after DRE			
Good	92	92.0	92.0
Bad	8	8.0	100.0
Total	100	100.0	
(viii) Pain Score			
0	81	81.0	81.0
1	2	2.0	83.0
2	5	5.0	88.0
3	5	5.0	93.0
4	3	3.0	96.0
5	4	4.0	100.0
Total	100	100.0	

Table 3: Cross tabulations: Previous DRE experience in relation to examiners

		GP	Urologist	Others	Total
Painful; Count	Painful; Count	20	17	8	45
	% within examiner	80.0	29.3	47.1	45.0
	% of total	20.0	17.0	8.0	45.0
Not Painful; Count	Not Painful; Count	5	41	9	55
	% within Examiner	20.0	70.9	52.9	55.0
	% of total	5.0	41.0	9.0	55.0
Total	Count	25	58	17	100
	% Within Examiner	100.0	100.0	100.0	100.0
	% of total	25.0	58.0	17.0	100.0

Statistics: $X^2 (2, N=100) = 18.172, P<.05$.

Results

We evaluated 100 men with a mean age of 64.88 ± 7.532 years ranging from 46 to 82 years. Majority (49%) of them were in their 7th decade of life [table 2(i)]. Forty five percent of them experienced pain during previous DRE while 55% reported no pains [table 2(ii)]. Their previous examiners were mostly urologists. Before this present DRE, 41% of patients imagined that the procedure will be painful, none of them gave the impression that it will be a humiliating experience. While 7% of the men said that it will not be comfortable, 52% imagined that it will be a normal experience [table 2(iv)]. After the examination, only 8% of them reported painful and humiliating experience while majority (74%) gave a normal report, 18% expressed discomfort [table 2(vi)]. Impression before and after was good in 59% and 92% respectively (Pvalue <0.05) and all of them accepted a repeat procedure and also wished to encourage their friends who need DRE for prostate evaluation. Mean pain score was 0.59 ± 1.349 (0 – 5) table 1. In their previous DRE experiences relating to examiners; urologist's examinations provoked lesser pain than others (Pvalue <0.05); table 3.

Discussion

Digital rectal examination of the prostate is a simple, fast, safe and cost effective tool in the evaluation of patients with prostatic symptoms. It represents a very useful method in screening and detection of Pca cases.⁴ It has been noted that a combination of PSA with DRE findings improves the overall rate of Pca detection than using either test alone.³ Despite its usefulness in this scenario, a great number of men still refuse DRE especially in

screening programmes for Pca, reasons being lack of knowledge about the disease and absence of symptoms.³ Others relate it to cultural barriers, embarrassment, association with homosexuality, discomfort, pain and fear of discovering cancer.⁵ Other men accept the procedure on account of their symptoms and wishes to make contributions to science.³ Some clinicians report that DRE causes no pain⁶ or may cause slight discomfort.⁷ This information should be used with caution so that patients may not express disappointment after the procedure which could impair future compliance due to pain.⁸

In this study, the mean age of patients was 64.88 ± 7.53 years and majority of them were in their 7th decade of life. Several studies have reported similar age group in patients presenting for prostatic evaluation with symptoms.⁹⁻¹¹ Forty five percent and 55% of them expressed "pain" and "no pain" respectively from previous DRE and that actually influenced their expectations towards a repeat examination. Although 9% of them changed their minds, 91% maintained that it will be a painful procedure from their recall. It follows from this information that a great number of men could refuse DRE because of previous experiences. In our study, all patients accepted the procedure because of obvious symptoms and of course with proper counseling. Patient's expectations before and their reactions after DRE were also assessed. Painful and humiliating experiences after DRE were reported by only 8% of them as against 41% who anticipated pain before the procedure (table 2 iv, vi). A good number of men (92%) reported good impression about DRE from 59% before the procedure (P<0.05) [table 2v, vii]. Similar result was documented by

Furlan et al who reported 59.5% before examination and 91.4% after examination ($P < .001$).¹²

All our patients expressed their willingness to submit for DRE in future if there is need for it and also accepted to encourage friends who may require DRE for assessment of their conditions. In Furlan et al¹² experience, 1.9% of them declined participating in annual DRE exercise. This, of course, was a screening programme unlike our study that was hospital based evaluating symptomatic men. In screening exercise, patients may decline because of absence of symptoms aside from anticipated pain, discomforts and cultural barriers. Evaluating patient's previous experiences related to examiner, our work showed that reports of pain were least when urologists examined and more when general practitioners were involved. In those who did not express pain, urologists were involved in the majority of cases ($P < 0.05$). This underscores the need for clinicians to be well vested with the knowledge and skills of DRE and this should commence early in the medical training. Papadiuk et al¹³ suggested lectures on DRE and the use of simulated models for medical students. This is a good method of training for beginners but the use of patients should be done as early as possible to foster integration of interpersonal, psychomotor and cognitive skills that drive good patients-physicians relationship. Thereafter clinicians should undergo periodic and continuous medical education on this very important procedure as they could be at the first contact point of receiving these patients before urologic consultations are made.

The mean Visual Analog Score for pain was 0.59 ± 1.349 ranging from 0 to 5. This was lower than the score recorded by Furlan et al¹² which was 1.68. The low mean score in our study should not lure us to believing that the procedure is completely painless as 7% of our patients had scores of between 4 and 5 (Table 2(iii)) signifying mild to moderate pain. Older patients reported absence of pain most of the time than the younger ones ($P > 0.05$). This may however be a chanced finding as expression of pain or absence of it does not relate to age.

Limitations: We did not include men without symptoms to evaluate their level of compliance as our patients were all symptomatic and did not have cognate reasons to decline. However, the strength of

this study lies in the fact that despite their previous experiences with DRE, after the counseling sessions, they saw the need to comply amidst other inherent barriers to DRE.

Conclusion

Patient's previous experiences during DRE can significantly influence their wish to accept or refuse the procedure and their negative expectations could be changed by proper counseling. Pain and discomfort which are the competing factors to refusing DRE may be reduced in the hands of the urologists. Proper training and re-training of other clinicians could make a huge difference in their hands. DRE being a tool for patient's evaluation in many aspects of clinical medicine should not be left for the urologists alone.

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