Observance of the practice of digital rectal examination. Survey of general practitioners in East-central Tunisia.

Observance de la pratique du toucher rectal. Enquête auprès des médecins généralistes du Centre-Est tunisien.

Mohamed Salah Jarrar[1], Faten Letaief [2], Houssem Fadhl [1], Ameni Beizig [3], Mohamed Mahjoub[4], Mohamed Habib Ben Hadj Khalifa[5], Amine Elghali[1], Fehmi Hamila[1], Rached Letaief [1]

1-Department of General Surgery - Farhat Hached University Hospital of Sousse / Faculty of Medicine of Sousse.
2-Department of Pediatric Surgery - Fattouma Bourguiba University Hospital of Monastir / Faculty of Medicine of Monastir
3-Emergency Department - Regional Hospital of Kasserine / Faculty of Medicine of Sousse
4-Hygiene Service - Farhat Hached University Hospital of Sousse / Faculty of Medicine of Sousse
5-Department of General Surgery - Regional Hospital of Sidi Bouzid / Faculty of Medicine of Sousse

RÉSUMÉ

Introduction. Le toucher rectal (TR) est un temps important de l'examen clinique. C'est un geste simple et non coûteux, qui sert au diagnostic et au dépistage de plusieurs pathologies. Toutefois, il semble que les médecins généralistes le pratiquent de moins en moins.
Le but de ce travail est d'évaluer le taux des TR indiqués et non réalisés et d'étudier des facteurs empêchant la réalisation du TR par les médecins généralistes.
Méthodes. Il s'agit d'une étude prospective observationnelle, menée auprès de 105 médecins exerçant à Sousse. Nous avons utilisé un questionnaire préétabli pré-testé et auto-administré, rempli anonymement.
Résultats. Nous avons identifié 551 TR qui ont été indiqués mais non réalisés. Il y a eu une influence significative entre la non-réalisation du TR d'une part, et d'autre part: le manque d'expérience; la proximité du spécialiste; le manque de formation et le manque de conviction de l'importance de cet examen. L'embarras lors de la réalisation du TR a été ressenti par 69.3% des médecins. Les facteurs associés à cet embarras étaient les suivants: le sexe féminin du praticien; son âge jeune; l'exercice en zone rurale et la nature des stages d'internat.
Conclusion. Bien que ce soit un geste simple et peu coûteux, le TR reste négligé par beaucoup de médecins. Plusieurs facteurs semblent influencer la réalisation de cet examen. La formation médicale continue semble nécessaire, d'autant que nous avons constaté un manque de conviction concernant l'importance de cet examen.

Mots-clés
Médecins de famille; Toucher rectal; Indication; Non-réalisation

SUMMARY

Introduction: Digital rectal examination (DRE) is a simple gesture, used for diagnosis of several diseases. However, some general practitioners (GPs) are practicing it less and less often.
Aim: To estimate the rate of unrealized DRE and to analyze the factors preventing threir achievement.
Methods: This is a prospective observational study conducted among 105 GPs practicing in Sousse. We used a pre-established pre-tested and self-administered questionnaire.
Results: We identified 551 DRE that were indicated but unrealized. There was a significant influence between the non-realization of DRE on the one hand, and on the other hand: the lack of experience; the closeness of the specialist; the lack of training and the lack of conviction of the importance of this examination. Embarrassment during the realization of the DRE was felt in 69.3% of cases. Factors associated with this embarrassment were: female practitioner; the young age of the practitioner; the rural practice and the nature of internship placements.
Conclusion. Although it is a simple and inexpensive gesture, the DRE remains neglected by many physicians. Several factors appear to influence the achievement of the DRE. Ongoing continuing medical education seems necessary, especially as we found a lack of belief in the importance of this examination.

Key-words
Family Physicians; Digital Rectal Examination; Indication; Unfulfillment

Digital rectal examination (DRE) is a simple, safe and fast clinical examination, generally painless and inexpensive, which is carried out without anesthesia. It is part of the proctology examination. It provides immediate information concerning several benign diseases, malignant diseases and even functional disorders. This examination focuses on the study of a region of the human body, considered intimate, and therefore, it can be embarrassing both for patients and physicians. Being simple and quick to perform, it should be mastered by primary care physicians. However, it seems that they practice it less than needed. Some studies have shown that DRE is less and less used in daily practice because of a feeling of embarrassment during its fulfillment; others expressed that the DRE has lost its importance in favor of paraclinical examinations [1-3]. We noted this ascertainment in binding letters we received from primary care physicians and by asking patients that were addressed to us for a specialist's opinion or a complement of care. Indeed, information about this examination is rarely specified and therefore we deduced that it is rarely practiced. From this ascertainment, we conducted a study aimed to estimate the rate of non-realization of the DRE by frontline GPs in the area of Sousse; and the contributive factors to such omission.

METHODS

We conducted an observational descriptive prospective study among GPs of public health and free practice in the governorate of Sousse. It is a governorate ranked as 3rd in population level among the 24 governorates of Tunisia. Its population is estimated at 675,000 inhabitants. We counted 277 practitioners who may be included in this study. We included in this study all general practitioners, whether public health or free practice, practicing in the Governorate of Sousse at the time of study and having a fixed and regular clinical activity. Have not been retained in this work: interns; doctors in public health with exclusive administrative activity; public health doctors working in departments without direct contact with patients (hygiene services, forensics, toxicology center...); physicians practicing in emergency medical services (EMS); doctors who have refused to participate in this study; and doctors who have not referred the questionnaires on time.

For the realization of this work, data was collected using a pre-established pre-tested and self-administered questionnaire. This questionnaire has two parts: The first part deals with general notions about the DRE. The second focuses on DRE that were not realized but that would have had an indication during the study week.

Each physician received the questionnaire by hand with a stamped envelope ready to send to a single address (PO Box), in order to ensure the anonymity of the survey. We have ensured that all physicians were to receive the questionnaire in person. The start of questionnaires referrals was set for July 15, 2014, and the deadline of reception had been set for November 15, 2014. We left the choice to fix the date of start and end of the investigation, which lasts one week, to the doctors.

Statistical analysis was performed by Epi Info version 8. The comparison of the quantitative variables was made by the Student's t-test; the comparison of qualitative variables was performed using the Chi-squared test (Yates' chi-squared test or F-test when the Chi-squared test's execution conditions are not checked). The threshold for statistical significance was set at 5% and the difference was considered as significant as of $p < 0.05$.

The overall participation rate was 37.9% (105 of 277). All responses were complete and interpretable.

RESULTS

The average age was 45 years, with extremes of 28 and 76 years. Our population included 39 women and 66 men (sex ratio 1.69). The average number of years of practice was 15 years with a minimum of one year and a maximum of 45 years. Eighty-eight physicians (83.8%) think that the DRE remains an important step in the clinical examination. The average unrealized DRE was 8.17 for those who think that the DRE is not important in the clinical examination, against 4.68 for physicians who consider it important. There was a statistically significant difference between the two groups ($p = 0.0462$).We found that the patient related factors bothering the doctors in the realization of the DRE are: the patient's sex (69.4%), the patient's age (51%), the religious factor (22.14%) and the presence of a third person (21.5%).

During this study, we identified 551 indicated and unrealized DRE over a week, with an average of 5.25 DRE per practitioner. We analyzed the average unrealized DRE according to socio-demographic and professional factors in the study population: Sex, seniority, practice location, type of practice, participation in continuing medical education, internship, training in DRE and specialist nearby. Table I summarizes these factors.

The average of unrealized DRE was 8.17 for doctors who thought that DRE was not an important step of the clinical examination against 4.68 for physicians who considered it important. We found a statistically significant difference between the two groups ($p = 0.046$). The average was 4.38 for doctors considered to be trained in the realization of DRE against 7.05 for the less trained. The statistical difference was significant between the 2 groups ($p = 0.033$).

Subsequently, we studied the discomfort felt by doctors facing situations requiring the realization of a DRE. In 382 cases (69.3%), practitioners felt awkwardness in the realization of the DRE. We analyzed the awkwardness according to socio-demographic and professional factors

in the study population (Table II). The discomfort felt during the realization of the DRE was significantly higher among female physicians, physicians aged under 40, physicians working in rural areas and physicians who have not had an internship in digestive surgery, in gastroenterology nor in urology.

Table 1 : Analysis of the average DRE indicated and unrealized according to socio-demographic and professional factors of practitioners.

Factors		Average of DRE indicated and unrealized / week	P
Sex M		5.29	0.87
F		5.18	
Seniority (years)	**< 10**	5.4	NS
	10 to 30	5.7	
	> 30	2.14	
Practice location	**Rural**	5.82	0.17
	Urban	4.91	
Type of practice	**Hospital**	4.45	0.34
	Private	5.63	
Participation in CME	**Yes**	5.18	0.62
	No	5.63	
Internship in GE, GS or U			0.49
	Yes	5.11	
	No	6.45	
"Well-trained" in DRE	**Yes**	4.38	0.033
	No	7.05	
Specialist nearby (Km)			
	<= 10	7.29	0.02
	> 10	5	

M = Male; F = Female; GE = Gastroenterology; GS = General Surgery; U = Urology; Km = Kilometer; CME: Continuing medical education

Table 2. Analysis of the discomfort felt by doctors during the realization of DRE according to socio-demographic and professional factors of practitioners.to socio-demographic and professional factors of practitioners.

		Discomfort felt during realization of DRE	p
Sex	M	64%	$< 10^{-3}$
	F	79%	
Age (years)	<= 40	54%	0.008
	> 40	46.3%	
Practice location	Rural	74%	0.046
	Urban	66%	
Internship in GE, GS or U	Yes	68%	0.023
	No	82%	

M = Male; F = Female; GE = Gastroenterology; GS = General Surgery; U = Urology

The difficulty ex pressed by the doctor influenced the receptivity of the patient (p = 0.021), and the pain felt at the realization of DRE ($p < 10^{-3}$).

Factors hindering the practice of DRE were linked to either the patient or the physician himself. According to our doctors questioned, the main reasons bothering them were the sex of the patient (69.4%) and patient's age (51%). In third position, they mentioned the religious factor (31.9%), then the presence of a third person (21.5%).

Besides factors related to physicians, the factors disturbing the practice of the DRE were: affective bonds maintained with patients (23.6%); the required position to undergo the DRE (18.3%); technical discomfort (11%); lack of material (5.2%); and lack of time (3.4%). Finally, we asked our population about the reasons impeding the completion of the DRE.

According to our doctors, explanations for indicated and unrealized DRE were:

• Indication of a complementary examination in 387 cases (70.2%);
• Patient refusal in 331 cases (60.1%);
• Referral to a specialist in 313 cases (56.8%);
• Inability of achievement of the DRE because of the pain or sphincter spasm in 222 cases (40.3%);
• Psychological context in 31 cases (5.62%): personality disorder (6 cases); history of sexual abuse (2 cases); mental disability (4 cases); dementia (19 cases).

Two doctors have mentioned one other reason: the patients were already explored and followed for colorectal cancer. In effect, practitioners have found it useless to perform a DRE in these cases.

We found that among 551 unrealized DRE, practitioners felt no discomfort in 169 cases (30.7%). One hundred fourteen DRE out of these 169 were not performed although the doctors considered it an important clinical examination. The reasons for these non-accomplishments were:

• Request for further examination in 75cases (65.8%);
• Patient refusal in 21 cases (18.4%);
• Pain felt by patients in 11 cases (9.6%);
• Psychological context in 7 cases (6.2%).

DISCUSSION

This study remains original as it allows to draw up an inventory on indicated and unrealized DRE, and to analyze contributing factors. This survey revived sensitization and awareness among respondents about the value of DRE in daily practice. But our study has certain shortcomings. The first one is a methodological limit, since it is a descriptive study, on the low-scale level of evidence. It contains a few measurement biases due to the questionnaire, which was not validated by experts. The questionnaire was used to measure reported

practices, and not observed practices, with eventually a declaration's bias. Moreover, despite the anonymity, the turnout was low.

We found that physicians with fewer years of experience as well as those installed near specialists perform fewer DRE. The factors that prevented doctors from performing a DRE were the patient's sex and age. The female practitioners and those located in rural areas found it more difficult to carry out this clinical examination. We noted that doctors who have done at least one internship in general surgery, gastroenterology or urology, did not express stress while practicing DRE. The main reason for non-completion of the DRE was the indication for further examination.

Our study showed that in 86.4% of cases, the reason for not performing DRE was linked exclusively to physicians. Age and number of years in practice influence the frequency of the practice of DRE. Two studies [4, 5] having focused on young Canadian and English doctors, reported that 76% of recently qualified doctors performed less than 10 DRE during their medical studies; Furthermore, Canadian students perform a maximum of one DRE during training and the coordinators of clinical skills expected that they carry out at least two DRE. In addition, it has been demonstrated that the realization of DRE by practitioners is correlated with the number of years in practice [1]. Indeed, the average of DRE performed was 24 per year for practitioners having had less than 4 years of experience, versus 129 per year for those with over 20 years of practice. In our study, physicians with more years of experience perform more DRE than younger colleagues. The difference between the two groups was statistically significant.

The study conducted in Leicester in Britain [6] showed that going through a general surgery department represents a good opportunity to practice DRE. This study reported that 43% of students said they had learned to do a DRE in a general surgery department and 22% in a urology department. In our survey, there were 11 physicians who didn't have an internship neither in general surgery department nor in urology nor in gastroenterology. We analyzed the influence of training periods during the internship, and we did not report statistically significant difference between groups. We found articles underlining the importance of the training and the impact on the practice of DRE [5, 7]. In terms of personal evaluation of training on the DRE, we notified that doctors who consider themselves well-trained on this topic have an average of non-realized DRE much significantly inferior to those who think of themselves as being less trained ($p = 0.03$). As the training in medical schools can influence skills and motivation of practitioners to perform DRE, we must think of evaluating teaching in our schools. This evaluation must take in consideration the opinion of future physicians in their own training. The passive reception of information is an outdated method for learning DRE [8]. It is currently recommended that medical students, learning the DRE for the first time, should be exposed to a variety of learning resources and experiences, including theoretical courses of physical examination, demonstration videos and standardized patients or patient simulators [9-13]. But despite the various resources and learning methods, a considerable number of medical students was neither exposed nor supervised to perform a DRE [11]. In 2012, it was demonstrated that the DRE is not used in everyday practice [1]. In addition, the majority of medical students were not adequately trained to perform DRE, and a majority of physicians were not comfortable performing a DRE.

Most of GPs in the United States of America feel embarrassed during or after having completed a DRE [2]. In our survey, the majority of practitioners feel uncomfortable at the time of completion of the DRE. The main reasons disturbing were the doctor's sex and patient's age. Further analysis of the different interactions has allowed us to define the causes of awkwardness related to the physician. We found that women, young physicians and practitioners installed in rural areas feel discomfort when doing a DRE, in addition to those who have not completed an internship in general surgery, gastroenterology nor urology.

The DRE has lost its importance in favor of paraclinical examinations [3]. This is due to focusing on the contribution of new technologies during medical studies. We reported that the first reason of non-realization of DRE was the indication for a supplementary examination and in third place was the closeness of specialist (the second reason was the patient's refusal). In addition, the average of non-performed DRE concerning doctors installed further than 20 kilometers away of specialists was statistically higher than those within 10 kilometers. This leads us to wonder whether some GPs consider DRE as a supplementary examination.

It is indisputable that the consent of the person examined or treated must be sought in all cases by the treating physician. It was shown that when explaining to the patient the benefit of the gesture, the DRE is well accepted [14, 15]. In our study, patient refusal was responsible for not doing the DRE in 60% of situations. We have demonstrated that the discomfort expressed by the doctor influences the receptivity of the patient ($p = 0.021$), and the pain felt at the realization of DRE ($p < 10^{-3}$). On the other hand, we noted that when practitioners think that it is an important clinical examination, and they feel no embarrassment when practicing DRE, the reason for non-completion was the patient's refusal in 18.4% of cases. Regarding the pain felt by the patient at the time of DRE, some studies showed that it is one of the main obstacles to the realization of DRE [16, 17]; such was the case in 40.3% of situations in our study. Furthermore, several diseases can cause pain or discomfort during

DRE (anal fissures, abscesses, fistulas, hemorrhoids, prostatitis, prostatic abscess, etc.) [17].

Despite the importance of DRE in the detection and diagnosis of many pathologies, many patients refuse to undergo this examination either by ignorance (we cannot blame them), or because of cultural prejudices related to it [16]. In a study about the patient's reaction to DRE [15], before the completion of this examination, 54% of consultants thought that DRE was painful and humiliating. Socio-demographic factors such as age, sex, ethnicity, education level and income, can change the perception of pain or discomfort [18-20]. Beliefs and anxiety of patients can also explain their discomfort. Patients may feel embarrassed to undress, or have concerns about their cleanliness, or be afraid of discovering a serious illness [21]. The lack of information on the procedure and the lack of empathy and gentleness of the examiner are also seen as factors influencing the patient's reaction. A sense of vulnerability associated with the patient's position can interfere with physical and psychological distress associated to the examination of the perineum [22]. We found that DRE was not performed because of the patient's sex in two thirds of cases, the patient's age in half of the cases and the religious factor in 22.14% of cases.

CONCLUSION

Despite the various resources and learning methods, a considerable number of medical students were neither exposed nor supervised to make a DRE correctly. Reducing the realization of DRE is not an exclusive phenomenon to Tunisia. Although it is a simple and inexpensive gesture, the DRE remains omitted by many physicians. Several factors appear to be the cause of such negligence. Continuing medical education and sensitization seem necessary, especially since the lack of conviction of the importance of this examination has just been clarified in our study. We consider it essential to establish a reporting system for physicians about indicated and unrealized DRE. This would be considered as part of a quality improvement culture and a safety of care, and not as a discriminative identification towards primary care physicians.

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