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RESEARCH ARTICLE

PREVALENCE OF ERECTILE DYSFUNCTION IN UROLOGY CONSULTATION: A PROSPECTIVE STUDY

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Abstract

Introduction: Erectile dysfunction is defined by the inability to obtain or maintain an erection sufficient to allow a satisfactory sexual relationship, according to the 2nd International Conference on Sexual Dysfunctions of 2004. This constitutes an attack on "virility", and is a source of significant psychological suffering for the individual as well as for his partner. Erectile dysfunction is also a multifactorial disease, related to the overall physical and psychological health of the patient.

Materials And Methods: The survey was conducted during three months in the military hospital of Avicenne in Marrakesh. It involved all patients consulting in Urology aged over 18 years regardless of the reason of consultation. Data was collected through a questionnaire by direct interview. The evaluation of ED was based on the definition of the 2nd International Conference of Sexual Dysfunction of 2004.

Results: The analysis included 482 patients. The average age of patients was 51 ± 11 years. The main reason for consultation was a prostate problem (45.2%). ED was indicated as reason for consultation by 5.1% of patients. The overall prevalence of ED was 46%. 35.2% already discussed it with a doctor. ED was significantly correlated with age, benign prostatic hyperplasia, cardiovascular risk factors, prostate and pelvic surgery ($P < 0.001$). 29.7% of ED patients used PDE5 inhibitors, 54% found it to be effective.

Conclusion: This survey confirms the high prevalence of ED and its important underreporting. Physicians are encouraged to ask patients about ED, especially since there are now simple and effective therapies.

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Introduction:-

Erectile dysfunction is defined by the inability to obtain or maintain an erection sufficient to allow a satisfactory sexual relationship, according to the 2nd International Conference on Sexual Dysfunctions of 2004. A duration of the disorder of at least 3 months is accepted to establish the diagnosis. The Diagnostic and Statistical Manual of Mental Disorders-5 specifies a duration of at least 6 months in its definition.

Indeed, because of its taboo character, and that for many men and women too. This constitutes an attack on "virility", and is a source of significant psychological suffering for the individual as well as for his partner. Erectile dysfunction is also a multifactorial disease, related to the overall physical and psychological health of the patient. A

subject who is therefore generally ill would be at greater risk of developing erectile dysfunction than a healthy subject.

It is in this perspective that the choice of this study was made to assess the prevalence of this pathology in patients consulting urology without considering its severity.

Material And Methods:-

The study took place for 3 months from September to November 2019 at the urology consultation center at the Avicenne military hospital in Marrakesh (Morocco).

This prospective, descriptive and cross-sectional survey had as a target population: any patient over 18 years of age and sexually active regardless of their reason for consultation in the context of urogenital pathology. A questionnaire was developed to collect patient data, administered by the practitioner while respecting anonymity and after verbal consent, it included questions grouped into 6 parts: the initial reason for consultation (prostate problem, hematuria, sexual disorder and other) and questions related to the coexistence of erectile dysfunction, socio-demographic data, pathological history (cardiovascular, diabetes, surgical and other), clinical characteristics of the pathology (primary or secondary, mode of installation, permanent character and other), marital status and situation of the couple, treatment and judgment of its effectiveness. The translation of the questionnaire is done by the practitioner orally to uneducated patients and explained to those who did not understand the meaning of certain questions. Data analysis and validation was performed using Excel software.

Results:-

A total of 482 exploitable files were collected. The average age of the patients was 57 ± 11 years. The over 60 age group was the most represented (54.3%). Married patients represented 91.2% of the patients questioned, of which only one had multiple partners, i.e. 0.4%. 25.3% of the patients questioned were illiterate. The first reason for consultation was prostatic pathology with 45.2%. Patients consulting for erectile dysfunction accounted for only 5.1%. 221 patients responded positively to the question reflecting the definition of erectile dysfunction regardless of its intensity and the age of the patients, the prevalence of erectile dysfunction was therefore 46% (95% CI = [39.7%; 52.3%]). The over 60 age group accounted for the majority of patients with erectile dysfunction with over 72%. The majority of patients with erectile dysfunction consulted for benign prostatic hypertrophy, i.e. 56.75%. Patients consulting for erectile dysfunction accounted for only 15.31% of patients with the disease. Of the 221 patients with erectile dysfunction, 78 (35.2%) have already consulted or reported it to their doctor as part of the follow-up for another disease. 64% of patients suffering from erectile dysfunction have therefore never declared or consulted. The majority of patients (60%) consulted after 1 year, 38.4% after a few months, and 6.6% after less than 1 month. Age over 60 years and benign prostatic hyperplasia were significantly correlated with erectile dysfunction as described below (Table I).

Table I:- Correlation between erectile dysfunction, age and BPH.

	Presence of erectile dysfunction	Absence of erectile dysfunction	P
Age over 60 yearsold	320/443 ; (72.2%)	204/520 ; (39.2%)	<0.001
Benignprostatichypertrophy	252/443 ; (56.8%)	168/520 ; (32.3%)	<0.001

Multivariate analysis found several factors significantly correlated with erectile dysfunction. The comparison with the men free from the disease shows that among these factors, the most important were diabetes, high blood pressure (hypertension), dyslipidemia, history of cardiovascular pathologies and history of prostate and pelvic surgeries (Table II). In 47.1% of cases there was no communication within the couple, compared to 52.8% of the distributed cases (Figure 1). 29.7% of patients with erectile dysfunction used PDE-5 inhibitors, 54% found it effective versus 45%.

Table II:- Factors associated with erectile dysfunction.

Antecedent	Presence of erectile dysfunction	Absence of erectile dysfunction	P
Diabetes	61/221 ; (27%)	17/261 ; (6%)	<0.001
High Blood Pressure	66/221 ; (29%)	28/261 ; (10%)	<0.001
Dyslipidemia	39/221 ; (17%)	11/261 ; (4%)	<0.001
Smoking	43/221 ; (19%)	39/261 ; (14%)	<0.2
Cardiovascular disease	38/221 ; (17%)	16/261 ; (6%)	<0.001
Neuropsychiatric	9/221 ; (4%)	5/261 ; (1.9%)	<0.2
Hormonal	2/221 ; (0.9%)	0/261 ; (0%)	<0.2
Prostate/pelvis Surgery	36/221 ; (16.2%)	20/261 ; (7.6%)	<0.001

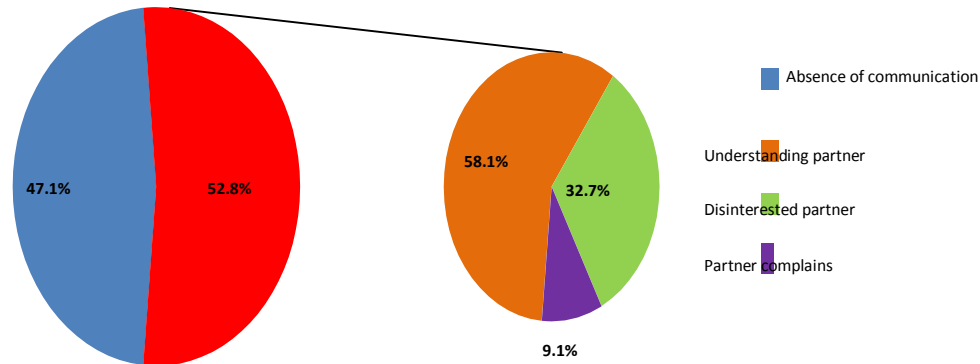


Figure 1:-Communication with the partner.

Discussion:-

Several studies have been made on this subject dealing with different parameters and populations, but they nevertheless remain insufficient in our context. Since erectile dysfunction is mainly the prerogative of the elderly, the Massachusetts Male Aging Study or MMAS [1], and the European Male Aging Study or EMAS [2] constitute pioneering studies and references on the subject, which it was deemed necessary to cite. The prevalence of Erectile Dysfunction in MMAS was 52% in patients aged 40 to 70 years. In our study, the prevalence of erectile dysfunction in those over 40 was 52.2% (208/398), which agrees perfectly with the results of MMAS. The GEERKENS et al study [3], a systematic review of 76 articles carried out in 2019, showed that the prevalence of the pathology in the general population was very variable from one study to another and ranged from 2 to 74% independently of age. 46% was the overall prevalence of Erectile Dysfunction in our study.

The same figures were reported by the EL-SAKKA [4] study in 2012 which showed that the prevalence of Erectile Dysfunction in Arab countries was over 40%. The MAHBUB study [5] reported that advanced age was significantly correlated with ED (P <0.001), which is consistent with the results of our study. In the same study, advanced age is also significantly correlated with the severity of ED (5.5% of severe ED in the 28-39 age group against 77.4% for 60-69 years, P <0.001).

The declaration of a sexual disorder to the doctor is often delicate for the patient, it would depend mainly on his level of education and socio-economic, his environment and his culture. We thought it appropriate to cite the study by Audun VIK and Mette BREKKE [6] carried out in Norway in 2017. Norway is known to have one of the highest

educational attainment indices in the world. In this study, out of 1117 patients, only 4.2% reported having a sexual disorder to their family doctor. In the systematic review by GEERKENS, reporting of sexual disorders to the doctor ranged from 3.7% to 30.1% in men over 60 years of age. In the Droupy S study, almost 60% of patients consulting urology indicated that they had declared their erectile dysfunction. Sexual problems were the first reason for consultation (14%) after prostate diseases.

The SA study. Foster in the USA [7] also reported a reporting rate of 69.9%. The low level of education in our series and the enormous socio-cultural difference between the West (France and USA) and Morocco could explain the underreporting in our country.

The results of our study showed a significant association between ED and BPH ($P < 0.001$) which is consistent with the results of other studies. The Multinational Survey of the Aging Male carried out on 14,000 men in the USA and 6 other countries of the European Union [8] showed that ED is strongly associated with lower urinary tract disorders (LUTS) regardless of age and Cardiovascular comorbidities ($P < 0.001$). The GONZALEZ-SANCHEZ study showed that among patients with mild (456), moderate (158) and severe (52) LUTS, 278 (61%), 118 (75%) and 44 (85%) reported having Erectile dysfunction respectively. The EL-SAKKA study evaluated the frequency of ED in patients with LUTS: 22.8% had mild erectile dysfunction, 42% moderate and 35.2% severe.

Communication with the partner about Erectile Dysfunction in our study was 52.8%. The FISHER study [9] carried out in the USA in 2005 on a sample of 449 patients reported a significant communication rate of 40% (184/449), against 59% having had little or no communication about the subject. In the same study, it was the man who initiated the discussion more than 86% of the time. According to the ALLEN MS et al study, 48 meta-analyses evaluated the effectiveness of different treatments for erectile dysfunction.

The treatments with testosterone and IPDE5 were the most effective. A relative risk of 2.1 compared to placebo for testosterone and 1.96 for IPDE5. The CHEN L et al [10] meta-analysis demonstrated that all PDE5 inhibitors were superior to placebo for the treatment of ED and that low-dose treatment was comparable to high-dose treatment in terms of efficiency. PDE5 inhibitors were more effective when combined with alpha-blocker therapy or psychotherapy [11, 12]. Our study included prescription and self-medication treatments, and only concerned treatment with PDE5 inhibitors, so we cannot explain the differences with other studies where the treatments were mainly prescribed by the doctor and which involved different means of treatments (Table III).

Table III:- Comparison of the percentages of ED treatments.

Author / Year / Country	Sample size	Patientstreated	Treatmentdeemed effective
A.FOSTER et al / 2013 / USA	75000	23%	33%
BENATTA M et al / 2016 / Algérie	185	17% 15% par IPDE5	
CHIANG et al / 2017 / Chine	183	65% par IPDE5	57%
S.DROUPY et al / 2009 / France	1740	25% 2/3 par IPDE5	
Our Survey	482	29.7% par IPDE5	45%

Conclusion:-

This survey highlights the enormous underreporting of erectile dysfunction in urology clinics. Patients actually consulting for ED are just the tip of the iceberg. As a result, few patients benefit from care. Further studies are needed in order, on the one hand, to better understand the reasons for this underreporting, and on the other hand, to

assess whether practitioners are asking patients the ED question. Indeed, it is also the doctor's responsibility to ask this question, as many patients would be relieved. Better awareness among doctors is recommended.

Ethical considerations

To protect patient confidentiality, the questionnaire was anonymous. The objectives and implications of the work were well explained to them. The questionnaire was completed after obtaining verbal consent from the patient.

We declare that all rules of ethics and anonymity are observed in the writing of this article.

We advise editors that this type of article is not subject to ethics committee approval.

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Conflicts of interest

No conflicts of interest in place with this observation.

The authors declare that there are no potential conflicts of interest in connection with this article.

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