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Original Article

The attitudes of Urologists and Gynecologists about overactive bladder and treatment of it in Turkey: A questionnaire survey

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ABSTRACT

Objective: We aimed to review the approaches of urologist and gynecologist in the management of overactive bladder (OAB).

Material and methods: A questionnaire consisting of 12 items were answered by 375 urologist and 46 gynecologist. The differences between frequency of encountering OAB, their viewpoints concerning conservative treatment, and their experience related to anticholinergic drug use and the management of refractory OAB were compared.

Results: The majority of the urologists, and gynecologists responded to the question "How often do you encounter OAB patients in your daily practice?" as 'in 10-25, and 50% of our patients', respectively (<0.001). The most common complaint consulted to urologists, and gynecologists were urge incontinence (51.1% vs. 64.8). The frequency of using questionnaire and voiding diary was similar in both specialties (23.9% vs. 25.1%, p=0.892). It was observed that 38.6% of the urologists, and 50% of the gynecologists had recommended conservative treatment as a first-line treatment of overactive bladder (p=0.049). The low sociocultural level was the most important obstacle confronting application of conservative treatment methods (54.3% vs. 37%, p=0.012). The survey participants indicated that the most important factor which affected their decision to select an anticholinergic agent as the first-line treatment of overactive bladder was higher effectiveness of these drugs (urologists; 55.7%, and gynecologists 64%, p=0.371). The patients who started to receive anticholinergic drugs most frequently complained both to their urologists, and/or gynecologists about dry mouth (76.3 vs. 74.5%). Based on the responses of the urologists, and gynecologists, the most frequent reason of anticholinergic drug withdrawal was patients' inability to tolerate side effects of these drugs (48% vs. 47.8%, p=0.697). The participants indicated that in case of unsatisfactory response to one anticholinergic agent, swithching rate to another anticholinergic drug was 56.9% among urologists vs. 59.6%, among gynecologists. In addition, 36.9% of urologists and 38.5% of gynecologists recommended another pharmaceutical form of the drug with a higher dose to their patients (p=0.279). Similar number of physicians indicated that the prescribed anticholinergic drug should be continued for at least 3 months and in case of unresponsiveness patient could be considered refractory. Majority of urologists (68.8%), and gynecologists (56.5%) chose to perform urodynamic tests in patients who are unresponsive to anticholinergic treatment, (p=0.093).

Conclusion: The attitudes of urologist and gynecologist for diagnosis and treatment of OAB are mostly correlating with current guideline practices with few exceptions. Urologists tend to use bladder diaries or questionnaires less frequently whereas, gynecologists refer to urodynamic studies in patients with refractory OAB less than the urologists do. However, irrespective of the clinical speciality, conservative treatment modalities are rarely administered.

Keywords: Gynecologist; over active bladder; urologist.

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Introduction

The International Continence Society (ICS) has defined the overactive bladder (OAB) as the condition of urgency which can be accompanied by urge incontinence with daytime frequency and nocturia in the absence of proven pathology.[1] OAB is a frequent disorder which affects both sexes with a reported prevalence ranging between 11.8 and 16.9 percent.[2,3] In a recent population-based survey which was conducted in Western Anatolia, the incidence of symptoms of urgency was reported as 29.3 percent.[4]

Diagnosis of OAB is made based on symptoms, and specific tests including invasive uro-

dynamic evaluation are not required for most of the patients.[5] Patient-reported outcomes and bladder diaries can provide additional information and aid in monitorization of the patients.[6-8] Conservative treatments, anticholinergics, botulinum toxin injections and neuromodulatory therapy are recommended by widely used guidelines.[6-8] However, there may be different approaches in real- life practice due to limitations of the health system or patient-related factors.[9]

Furthermore, there may be some controversies in the management of OAB among different specialties. In this survey we aimed to review approaches of the urologists and gynecologists in the evaluation and management of OAB in Turkish patients.

Material and methods

This study was done in accordance with the principles of Helsinki Declaration. Between February 2016, and March 2016, questionnaire forms evaluating the attitudes of the urologists and gynecologists towards management of overactive bladder were delivered to 375 urologists, and 46 gynecologists working in 7 different regions of our country (Table 1). The questionnaire forms consisting of 12 items were sent to participating specialists to determine the differences between frequency of encountering OAB, their viewpoints concerning conservative treatment, and their experience related to anticholinergic drug use and the management of refractory OAB. This questionnaire forms did not reveal the identity of the hospital/medical center, the patients and physicians.

Statistical analysis

Descriptive data were quantitatively evaluated, and expressed as numbers, and frequencies (%). The correlations between the field of specialization and the responses to questions were analyzed using an appropriate *chi*-square test (Pearson *chi*-square or Fisher-Freeman-Halton exact test). When statistically significant results were obtained, post-hoc z-test with Bonferroni correction was used to determine the specialty which caused a significant difference in responses. $p<0.05$ was specified as the level of statistical significance, and Statistical Package for the Social Sciences v.23 (SPSS Inc; Chicago, IL, USA) program was employed in calculations.

Results

The distribution rates of specialties among health institutions (State Hospital, Private Hospital, University, Training and Research Hospital) were approximately identical, and the number of physicians participated in this survey did not significantly change between medical institutions (p=0.893).

The majority of the urologists, and gynecologists responded to the question "How often do you encounter OAB patients in your daily practice?" as '10-25, and 50% of our patients have OAB', respectively (<0.001). However, in both fields of specialization, similar number of physicians responded as 'in 10%, and <50% of our patients have OAB', respectively. The most common complaint which was consulted to urologists, and gynecologists was urge incontinence (51.1% vs. 64.8%), and urgency (30% vs. 22.2%) (p=0.305). The frequency of using questionnaire and voiding diary in the diagnosis OAB was similar among urologists, and gynecologists (23.9% and 25.1%, p=0.892).

It was observed that 38.6% of the urologists, and 50% of the gynecologists had recommended methods of conservative treatment as a first-line treatment of overactive bladder (p=0.049). Physicians in both specialties, most frequently the urologists, indicated that the low sociocultural level was the most important obstacle confronting application of conservative treatment methods (54.3% vs. 37% of gynecologists, p=0.012) (Table 2).

The survey participants indicated that the most important factor which affected their decision to select an anticholinergic agent as the first-line treatment of overactive bladder was higher effectiveness of these drugs (urologists; 55.7%, and gynecologists 64%, p=0.371). The patients who started to receive anticholinergic drugs most frequently complained both to their urologists, and/or gynecologists about dry mouth (76.3 vs. 74.5%), followed by constipation (20.2% vs. 21.6%) (p=0.856). Based on the responses of the urologists, and gynecologists, the most frequent reason of anticholinergic drug withdrawal was patients' inability to tolerate side effects of these drugs (48% vs. 47.8%, p=0.697) (Figure 1) (Table 3).

The participants indicated that in case of unsatisfactory response to one anticholinergic agent, swithching rate to another anticholinergic drug was 56.9% among urologists vs. 59.6%, among gynecologists. In addition, 36.9% of urologists and 38.5% of gynecologists recommended another pharmaceutical form of the drug with a higher dose to their patients (p=0.279) (Figure 2). Similar number of physicians indicated that the prescribed anticholinergic drug should be continued for at least 3 months and in case of unresponsiveness patient could be considered refractory. Majority of urologists (68.8%), and gynecologists (56.5%) chose to perform urodynamic tests in patients who are unresponsive to anticholinergic treatment, (p=0.093) (Table 4).

Discussion

Overactive bladder is a common health problem with a significant amount of workload for both urologists and gynecologists. The results of this survey confirmed this assertion and revealed almost similar attitudes and perceptions of the urologists, and gynecologists about management of OAB. To the best of our

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knowledge this is the first study comparing approaches of gynecologists and urologists about management of OAB.

In the present study more than 60% percent of all responders reported that 10-25% of their patients had OAB symptoms. The gynecologists stated that they had been treating greater number of patients with OAB when compared with urologists. National *Overactive BLadder* Evaluation (NOBLE) study reported similar overall OAB prevalence rates for men and women (16% and 16.9% respectively). However, urge incontinence was more common in women than observed in men (maximum prevalence: 19% and 8.9%, respectively).[3] Although the relation of storage symptoms with bladder outlet obstruction due to prostatic hyperplasia is not clear; OAB in men is often linked to benign prostatic hyperplasia.[10] These factors may explain the reason why men are less frequently diagnosed with OAB than women.

Urgency is the key symptom in the diagnosis of OAB. However, the presence of urge incontinence decreases quality of life more severely than the other lower urinary tract symptoms do.[11] In our study, urge incontinence was the most frequent driving symptom for seeking medical help. This reply was given by approximately half of the responders and there was no significant difference between specialties ($p>0.05$).

Diagnosis of OAB is made based on history and exclusion of possible organic factors (urinary tract infections, stones…). The bladder diaries or frequency volume charts are useful to confirm the diagnosis. Also some valuable information can be obtained such as excessive fluid intake which can be managed easily with behavioral modification.[6,12] While bladder diaries and questionnaires are not included in minimum requirements of OAB diagnosis in AUA/SUFU guidelines, EAU recommends use of bladder diaries and questionnaires for patients with incontinence.[6,8] In the current survey nearly a quarter of the responders replied that they were using these instruments. A question regarding the reasons for not using these diagnostic tools in practice was not included in this survey, and the reasons of this contrary tendency remain obscure. We can speculate that time restraints, patient-related factors and considering these diagnostic instruments to be not useful by physicians may explain their why they have not been chosen to be used.

The options for the treatment of OAB include conservative treatment, medical treatment with antimuscarinics or beta-receptor agonists, botulinum toxin injection, neuromodulation or surgery.[6-8] Conservative treatments such as life style modifications, bladder and pelvic floor training are effective and recommended as the first- line treatment alternatives.[6-8,13] In the current survey only 38.6% of the urologists and 50% of the gynecologists recommended conservative treatment options to all of their patients. The comparison was statistically significant between two specialists and the urologists were found to be statistically significantly more reluctant to use conservative treatment options than gynecologists.

In real- life practice it is not always easy for patients to adopt new behavioral modifications to control OAB symptoms. Some patients may not fully understand or apply this treatment options. Treatments such as pelvic floor training have better outcomes with a supervision.[8] The most common handicap for applicability of the conservative treatment was found to be low socio-cultural levels of the patients. Low socio-cultural level was indicated as the cause of noncompliance to conservative treatment by 54.3% of the urologists and 37% of the gynecologists, without any significant difference between both of these specialties. This is followed by inability to reserve enough time for the patients in both specialties. On the other hand, higher number of gynecologists relative to urologists declared difficulties in describing these conservative treatments Antimuscarinics are the first-line medical treatment options for OAB. There are several randomized controlled trials showing effectiveness of all antimuscarinics over placebo.[14] The efficacy and side effect profile should be considered before prescription of a single molecule.[15] In our study, efficacy profile of the antimuscarinic agent, followed by the number of its side effects were the most important factors effecting the tendency of prescribing these drugs by more than half of the physicians. The side effects of the antimuscarinics still remain to be one of the most important problems. While dry mouth was reported as the most common side effect followed by constipation; the cognitive dysfunction and cardiovascular symptoms were not prevalent. These rates were almost equal in both groups.

Adherence to the treatment is another problem encountered in the medical treatment of OAB. In a systematic review, the compliance rate to treatment rate was found to range between 12.0 and 39.4 percent.[16] The most common reasons for withdrawal were side effects, and insufficient efficacy. However, in the current survey, approximately three fourths of all participants reported higher incidence of the side effects as the most important reason. Since these percentages reflect only observations of the physicians, we cannot make a conclusion whether the same compliance rate are true or not for the Turkish population.

In case of insufficient efficacy of a single molecule, trial of a different molecule can be an option. Furthermore, for the molecules with flexible doses, it is possible to achieve a better result from a higher dose of the same molecule. Also, for those cases, injection of botulinum toxin into detrusor, also sacral or peripheral neuromodulation can be employed.[15] Before initiation of invasive methods, it is possible to try another molecule or increase the dose. In our survey the most common strategy of the responders in both groups was to change the molecule

Table 1. Questionnaire form

Health institution of the physician	State Hospital Private Hospital University-Training and Research Hospital
How often do you encounter OAB patients in your daily practice?	10% 10-25% 25-50% 50% >50%
What is the most frequent admission complaint of OAB patients?*	Urgency Urge incontinence Nocturia Pollakiuria
For the diagnosis of OAB, do you use bladder diary or OAB questionnaire form?	Yes No
How often do you recommend conservative treatment methods to your patients as a first-line treatment for OAB?	I don't recommend Less than 10% One third of the patients Half of the patients For all patients as a first-line treatment
What is the most important problematic issue in the application of conservative treatment methods?*	Inability to reserve adequate time for the patients Low sociocultural level of the patients Lower efficacy Difficulties in description
What is the most important factor effective in your decision to select anticholinergic treatment as a first-line treatment for OAB?*	Lesser number of side effects Suitable for flexible dosing Cost-effectiveness Higher effectiveness
Based on the self-reports of the patients, what is the most common side effect you observed in your patients who started to use anticholinergic drugs?*	Constipation Dry mouth Cognitive dysfunction Cardiovascular symptoms
What is the most frequent cause of your patients' discontinuation of the drugs used in the treatment of OAB?	Inadequate efficacy Side effects High cost Reluctancy to use drug(s) Any feedback was not obtained from the patients
Do you recommend urodynamic tests for your patients refractory to anticholinergic treatment?	Yes No
If you don't achieve adequate response with the anticholinergic agent you prescribed for the treatment of your OAB patient, what will be your next approach?*	I switch to an anticholinergic agent with a different composition I switch to a higher dose of the anticholinergic drug used. I recommend injection of botulinum toxin I recommend peripheral or sacral neuromodulation
What do you think is the shortest duration of anticholinergic drug use in order to consider refractoriness of this treatment?	1 week 1 month 3 months 6 months

*More than one alternative can be marked as a response to these questions.

OAB: overactive bladder

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Table 2. Distribution of the responses given to the questions among gynecologists, and urologists

		Gynecologist	Urologist	
		n (%)	n (%)	p
How often do you recommend conservative treatment methods to your patients as a first-line treatment for OAB?	I don't recommend	2[a] (4.3)	38[a] (10.4)	
	For < 10% of the patients	10[a] (21.7)	88[a] (23.4)	
	For 1 /3 of the patients	1[a] (2.2)	53[b] (14.1)	0.049
	For 1 /2 of the patients	10[a] (21.7)	51[a] (13.6)	
	For all patients	23[a] (50.0)	145[a] (38.6)	
What is the most important problematic issue in the application of conservative treatment methods?*	Inability to reserve enough time for the patients	11[a] (20.4)	99[a] (23.2)	0.012
	Lower sociocultural level of the patients	20[a] (37.2)	232[b] (54.3)	
	Lower effectiveness	12[a] (22.2)	56[a] (13.1)	
	Difficulties in description of the treatment	11[a] (20.4)	40[b] (9.4)	

*More than one alternative can be marked as a response to these questions. Therefore the number of responses appears to be in excess of the number of responders.

[a,b]: The responses which were significantly different between specialties are indicated by subscripts placed adjacent to percentages.

OAB: overactive bladder.

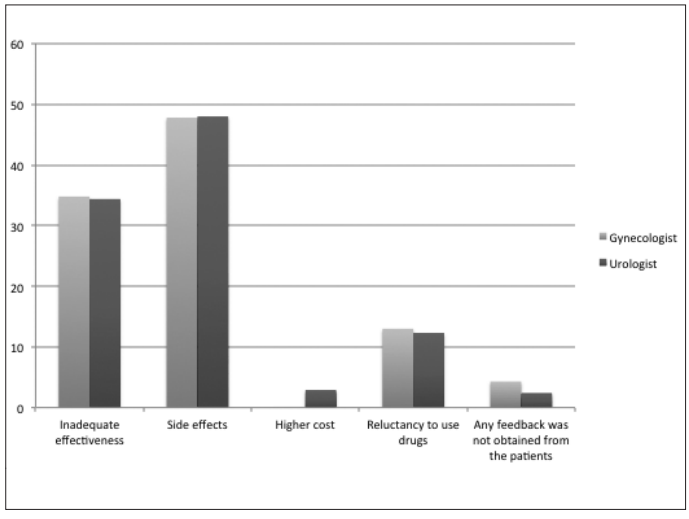

Figure 1. The most frequent cause of patients' discontinuation of the drugs used in the treatment of overactive bladder

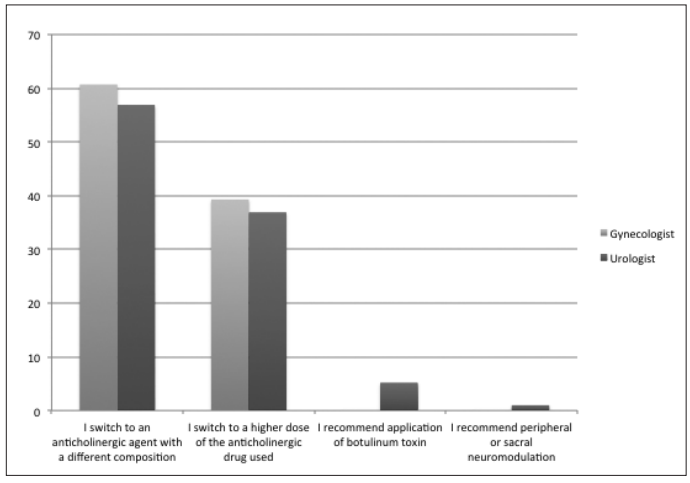

Figure 2. The approach of the physicians when the satisfactory response could not be elicited using anticholinergic agents in the treatment of overactive bladder

or increase the dose of the same molecule as indicated by more than 50% of the responders.

Refractory OAB is one of the challenging problems in the treatment of OAB patients. The exact definition of the refractory OAB still remains to be defined. The International Continence Society (ICS) guidelines define refractory OAB as an unresponsive OAB to at least two different types of antimuscarinics used at 3-month-intervals.[17] The urologists participating in the questionnaire survey most frequently indicated 3 months of treatment-resistant interval as a criterion for refractory OAB without any significant difference from the responses given by gynecologists.

Use of urodynamic studies before initiation of therapy is not mandatory. However, for the treatment-refractory cases, urodynamic studies can be employed to rule out other pathologies such as stress urinary incontinence, bladder outlet obstruction or poor compliance.[5] Indeed significant number of urologists (68.8%), and gynecologists (56.5%) expressed their willingness to apply urodynamic studies for their patients. We think that the availability of urodynamics may effect this choice.

In conclusion, patients with lower urinary tract symptoms due to OAB commonly present to urology and gynecology outpatient clinics in daily practice. In the present study, we determined that there is no statistically significant difference

Table 3. Distribution of the responses given to the questions among gynecologists, and urologists

		Gynecologist Urologist		
		n, (%)	n, (%)	p
What is the most important factor effective in your decision to select anticholinergic treatment as a first-line treatment of OAB?*	Lesser number of side effects	12 (24.4)	139 (32.6)	
	Suitability of a flexible dosing	5 (10.2)	28 (6.6)	0.371
	Cost-effectiveness	0 (0)	22 (5.2)	
	Higher effectiveness	32 (65.3)	238 (55.7)	
What is the most common side effect you observed in your patients who started to use anticholinergic drugs?*	Constipation	11 (21.6)	86 (20.2)	
	Dry mouth	38 (74.5)	325 (76.3)	0.856
	Cognitive dysfunction	2 (3,9)	11 (2.6)	
	Cardiovascular symptoms	0 (0)	4 (0.9)	
Based on the self-reports of the patients, what is the most frequent cause of your patients' discontinuation of the drugs used in the treatment of OAB?	Inadequate effectiveness	16 (34.8)	129 (34.4)	
	Side effects	22 (47.8)	180 (48)	
	Higher cost	0 (0)	11 (2.9)	0.697
	Reluctancy to use drugs	6 (13.0)	46 (12.3)	
	Any feedback was not obtained from the patients	2 (4.3)	9 (2.4)	

*More than one alternative can be marked as a response to these questions. Therefore the number of responses appears to be in excess of the number of responders.
OAB: overactive bladder.

Table 4. Distribution of the responses given to the questions among gynecologists, and urologists

		Gynecologist Urologist		
		n (%)	n (%)	p
If you don't achieve adequate response withthe anticholinergic agent you prescribed forthe treatment of your OAB patient, what will be your next approach?*	I switch to an anticholinergic agent with a different formulation	31 (60.7)	228 (56.9)	0.279
	I switch to a higher dose of the anticholinergic drug used	20 (39.3)	148 (36.9)	
	I recommend application of botulinum toxin	0 (0)	21 (5.2)	
	I recommend peripheral or sacral neuromodulation	0 (0)	4 (1.0)	
What do you think is the shortest duration of anticholinergic drug use in order to consider refractoriness of this treatment?	1 week	1 (2.2)	7 (1.9)	0.608
	1 month	16 (34.8)	130 (34.7)	
	3 months	20 (43.5)	190 (50.7)	
	6 months	9 (19.6)	48 (12.8)	

*More than one alternative can be marked as a response to these questions. Therefore the number of responses appears to be in excess of the number of responders.
OAB: overactive bladder.

between these two specialties regarding evaluation and management of OAB with a few exceptions. Urologists tend to disregard bladder diaries or questionnaires. On the other hand, gynecologists do not favor urodynamic studies in case of treatment-refractory OAB. Irrespective of the specialty conservative treatment modalities are mostly ignored due to low sociocultural level of the patients.

These results can be suggested to be considered by health regulatory authorities to provide better solutions for the management of this disease.

Ethics Committee Approval: Authors declared that the research was conducted according to the principles of the World Medical Association Declaration of Helsinki "Ethical Principles for Medical Research Involving Human Subjects", (amended in October 2013).

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