

CLINICAL AND EPIDEMIOLOGICAL CRITERIA OF OVERACTIVE BLADDER (OAB) AMONG WOMEN: A POPULATION BASED STUDY

Hypothesis / aims of study

We hypothesize that OAB among women of different ethnic groups has different clinical and epidemiological criteria as well as different risk profile and health care seeking behaviour. These criteria have never been assessed in any study in countries like Egypt, where the community has its own socioeconomic cultures. The aims of this study are: (1) to estimate the prevalence and the potential factors associated with OAB among a population of Egyptian women (2) to study the clinical criteria of OAB syndrome (3) to study the impact of urge incontinence on the QoL of incontinent women.

Study design, materials and methods

This is a cross-sectional, community-based study. Participants were women, aged 20 years and older, randomly selected from the community. Participants completed a questionnaire that is composed of 3 questions: *Do you have increased frequency of micturitions that is at least 8 times in 24 hours? Do you have a sudden strong desire to urinate which is difficult to defer? Do you leak urine because you cannot defer the sudden desire to urinate?*. Demographic characteristics, menopause status, obstetric history, parity, and educational level were also assessed in the interview. OAB was defined according to the recent recommendation of the ICS. For the assessment of quality of life (QoL) we proposed a set of closed-ended questions and we borrowed some items from the Incontinence Impact Questionnaire- Short form (IIQ-7). The questionnaire was translated to Arabic that resembles common speech in Egypt. Test retest reliability of the Questionnaire was done after this translation. A pilot study was carried out before starting the study in which the questionnaire was administered to 30 women. After 2 weeks the questionnaire was re-administered to those women. The correlation coefficient for the questionnaire was $r = 0.82$ ($P=0.01$).

Results

A total of 1652 women were randomly selected from the community. 40% of women reported having OAB symptoms, 26% with dry OAB (15% with urgency only; and 11% with both urgency and frequency) and 14% with wet OAB (urge incontinence). The prevalence of dry OAB is significantly higher than wet OAB in subjects less than 50 years old. At the age of 50, there is shift of OAB symptoms; the prevalence of wet OAB is significantly higher than dry OAB in this age group; 43% vs. 21%, respectively, $p=0.04$). On univariate analysis, factors significantly associated with wet OAB were aging, multiparity, vaginal delivery, menopause, repeated abortions and low educational level. On regression analysis, menopause, low education level, multiparity (>3), repeated abortions (>3) were significantly associated with OAB wet. Regarding the quality of life, the most distressing issues for women with OAB wet were their inability to pray (92%), while other aspects of QoL are affected as in other ethnic groups. Only 4% of those with urge incontinence have sought medical advice.

Interpretation of results

1. The prevalence of OAB among Egyptian women is relatively higher than other reports. Reasons could be the methodology of our study or socioeconomic criteria of the Egyptian community (e.g. high parity rate and young age at marriage).
2. After adjustment of the potential risk factors differences by regression analysis, elderly women did not have a significantly increased risk for OAB, while menopausal status was strongly and significantly associated with increased risk for OAB all and OAB wet, i.e. menopause is the strongest risk factor for OAB, while aging is a confounding factor.
3. The shift in the presentation of OAB with aging may represent a transition from one stage of the disease to another stage; dry OAB may precede the onset of OAB wet.

Concluding message

The clinical and epidemiological criteria of OAB as well as determinants of health care seeking behaviour in Egypt are different from those in western countries. OAB is a highly prevalent condition among Egyptian women and the risk profile of this condition may be different in Egypt putting in mind cultural traditions of the community e.g. young age at marriage and multiparity especially in rural areas. Our study may aid to uncover this hidden problem to give help to those women with OAB where the cultural traditions may prevent them from seeking consultation.

| | OR | 95% CI | | p-value |
|------------------------------|-------|--------|--------|---------|
| Postmenopausal Status | 3.266 | 2.081 | 5.126 | 0.000 |
| Low Education | 0.485 | 0.347 | 0.678 | 0.000 |
| Multiparity (>3) | 7.573 | 3.040 | 18.867 | 0.000 |
| Abortion (>3) | 1.447 | 1.055 | 1.985 | 0.022 |
| Vaginal Delivery | 0.521 | 0.254 | 1.069 | 0.076 |
| Age > 60 years | 0.615 | 0.325 | 1.163 | 0.135 |

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|------------------------|-------|-------|-------|-------|
| Rural Residence | 0.849 | 0.613 | 1.176 | 0.324 |
|------------------------|-------|-------|-------|-------|

Table 1: Regression (multivariate) analysis of the potential risk factors associated with overall OAB wet. The analysis included all potential risk factors, with the outcome as wet OAB versus normal subjects.

References

FUNDING: No funding or grants

HUMAN SUBJECTS: This study was approved by the Ethical Committee of Faculty of Medicine and followed the Declaration of Helsinki Informed consent was obtained from the patients.