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## **IS URINARY TRACT INFECTION A RISK FACTOR FOR OVERACTIVE BLADDER?**

### Hypothesis / aims of study

Overactive Bladder(OAB) is associated with symptoms including urgency, with or without urge incontinence, usually with frequency and nocturia. The causative factors for OAB are multifactorial. Many physicians and researchers are interested in the risk factors related to OAB. We investigated that the history of urinary tract infection(UTI) is a risk factor for OAB in sexually active females aged twenty to fifty.

### Study design, materials and methods

Between April 2002 and May 2002, out of 3,757 patients who replied to the questionnaire dealing with female voiding symptoms, on online. 3,372 were included in our study who replied to the questionnaire completely correct. The main outcome measures were: presence or absence of storage symptoms especially urgency and a past one year history of UTI. Respondents were categorized into subgroups according to the presence of OAB. Group I was diagnosed with OAB(28.0%, mean age 24.7 years), group II had no OAB(68.0%, mean age 25.4 years). Statistical analysis was done to find the relationship between OAB and UTI, between storage symptoms(frequency, urgency, urge incontinence) and UTI

### Results

250(23.1%) patients in Group I and 381(14.2%) patients in Group II had a history of UTI. Significant relationship is seen in patients with a past history of UTI in group I ( $p<0.01$ ). 147(13.6%) patients in group I and 931(40.5%) patients in group II had symptoms associated with urge incontinence.

### Interpretation of results

Statistical significance is seen between urge incontinence associated with OAB and UTI( $p=0.02$ ). UTI was related with conditions such as frequency and urge incontinence( $p=0.02$ ,  $p=0.03$ ), but no relationship was seen with nocturia( $p=0.183$ )

### Concluding message

UTI history is considered a risk factor of OAB. Early management of UTI and prevention of UTI suggest an important preventive role for OAB. Further investigation is needed in order to find out the chronic effects of UTI on the function of the urothelium and bladder.