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Nuttall M<sup>1</sup>, McLarty E<sup>1</sup>, Brown C<sup>2</sup>, Venn S<sup>1</sup>

1. St Richard's Hospital, Chichester, 2. Clinical Effectiveness Unit, Royal College of Surgeons of England

# EVALUATION OF THE INVESTIGATIONS PERFORMED IN WOMEN AGED OVER 40 REFERRED FOR RECURRENT LOWER URINARY TRACT INFECTIONS

### Aims of Study

Recurrent urinary tract infections, defined as three or more symptomatic urinary tract infections over one year, are common in otherwise healthy women attending general urology outpatient clinics. Severe complications are rare but the high incidence and prevalence of this condition represents a significant burden to health care organisations. The aetiology, risk factors and rates of recurrence differ with the oestrogen status of female patients. The majority of these women do not have a treatable structural abnormality of the urinary tract and may not require further investigations to be performed. Many clinicians, however, do routinely investigate these women in order to diagnose pathology which if untreated may lead to further recurrence or long-term renal damage. The investigative management of these women is unclear and there is a considerable variation in the diagnostic strategies used in everyday clinical practice. We, therefore, performed a study to determine the yield of significant pathology detected by investigations performed routinely in our clinic.

## **Methods**

We performed a prospective observational study of the investigations performed on 100 consecutive women (mean age 64.9 years, range 40-88 years) referred by their general practitioners to a single urology outpatient clinic with symptoms and signs suggestive of recurrent urinary tract infection. The investigations performed were those deemed necessary by the assessing physician. All women with atrophic vaginal changes on clinical examination were prescribed vaginal oestrogen replacement.

#### **Results**

Urine cytology was performed 75 times and was positive for malignant cells once (1.3%). Plain X-ray of the urinary tract was performed 88 times and stones were detected in 8 patients (9.1%). Ultrasound of the renal tract was performed on 91 patients and significant pathology found in six patients (6.6%): one bladder TCC, two PUJ obstructions, one angiomyolipoma of the kidney and two significant bladder residual volumes. Flexible cystoscopy was performed 90 times and significant abnormalities found 5 times (5.6%): two cases of urethral stenosis requiring dilatation, one bladder TCC and two significant bladder residual volumes. In total significant pathology was found during investigation in 14 (14%) of the patients. The patient with bladder TCC was diagnosed at cystoscopy but also on urine cytology and bladder ultrasound. The cause of recurrent UTI's was considered vaginal oestrogen deficiency in 39 (39%).

#### **Conclusions**

Recurrent urinary tract infection is a very common infection in women and diagnostic evaluation varies considerably between clinicians. Significant pathology was detected in this study and therefore investigating women over 40 years old with recurrent urinary tract infections is of value.