

ACCURACY OF URINE DIPSTICK ANALYSIS IN A UROGYNECOLOGIC POPULATION**Aims of study**

To determine the sensitivity of the urine dipstick for positive urine culture (UC) in a tertiary care urogynecologic population.

Methods

Laboratory data for consecutive new patients presenting for urogynecologic care between January-May 2001 were reviewed. Patients were routinely catheterized to determine post-void residual volumes (PVR). If sufficient volume was obtained, a dipstick (Multistix[®] 10SG reagent strips) and UC were performed. This study includes patients who had both dipstick and UC. A positive dipstick was recorded in the presence of nitrites or leukocytes. Urine culture was considered positive if $\geq 10^2$ colonies of a single uropathogen were present.

Results

One hundred forty-three women had both dipstick and UC available for analysis. The remaining 74 women either refused catheterization or had insufficient volume for one or both tests. Study women had a mean age of 58 years (range 20-92) and a mean BMI of 27 kg/m² (17-63). Eighty-seven percent of the women were Caucasian, 7% African –American, and 5% Hispanic. Seventy-six percent were postmenopausal and 48% had prior pelvic surgery. The women had a mean PVR of 48ml (0-400).

Urine Dipstick	Urine Culture	
	(+)	(-)
(+)	7	2
(-)	12	121

Urine dipstick analysis had a low sensitivity of 35% with a high specificity of 98%. The negative predictive value of the dipstick was 91%, and the positive predictive value was 78%. Thirty women had dipstick positive for only blood, and only one (3%) had a positive UC. There was no difference in stage of prolapse or PVR between women with and without UTI.

Conclusion

Urine dipstick has a low sensitivity for positive UC in a tertiary care urogynecology population. Urine cultures should be performed for UTI detection in women whose dipstick is negative.