

## Clinical significance of bladder urothelial thickening and enhancement revealed on MDCT urography after transurethral resection of tumor

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**PURPOSE:** To assess multidetector-row computed tomographic (MDCT) urography for detection of recurrence of bladder tumor after transurethral resection (TUR), and to assess significance of the MDCT findings like urothelial enhancement or thickening as a recurrence.

**MATERIALS AND METHODS:** A total of 216 MDCT urography examinations were performed for 100 patients undergoing follow-up after TURs were reviewed by 2 radiologists, according to MDCT findings (urothelial enhancement or thickening) and location (TUR site or distant sites of transitional cell carcinoma). Multidetector-row CT urography was confirmed by cystoscopy and urine cytologic examination. Analyses of per-MDCT urography and per-lesion basis were performed, assessing receiver operating characteristic analysis for combining excretory phases to noncontrast and portal venous phases.

**RESULTS:** Fifty-two MDCT findings were positive, and 164 MDCT findings were negative. Of the 52 positive MDCT urography, 19 were true positive 33 were false positive. Of the 60 separate lesions, 25 lesions were true positive. Both urothelial enhancement and thickening were revealed in 19 lesions, urothelial enhancement in 4 lesions, and urothelial thickenings in 2 lesions. Nineteen lesions were revealed in TUR site, and 6 lesions were revealed in distant site of transitional cell carcinoma. For MDCT urography combining excretory phases to non-contrast and portal venous phases, a substantial agreement between radiologists was revealed (area under the curve; 0.910 T 0.035, 0.749 T 0.055; 8.3%; kappa score of 0.65).

**CONCLUSION:** Multidetector-row CT urography has efficacy in detecting recurrence of bladder tumor in patients undergoing follow-up after TUR.

**KEY WORDS:** bladder tumor, transurethral resection (TUR), MDCT urography