Narrow Band Imaging Can Reduce Recurrence of Bladder Tumours

Researchers in Europe have found that using narrow band imaging in bladder tumour surgery can significantly reduce the risk of disease recurrence.

The results of the clinical trial, published in European Urology, compared two groups of bladder cancer patients who were due to undergo bladder tumour resection surgery.

Only 5.6% of low-risk patients in the narrow band imaging (NBI) facilitated surgery group experienced a recurrence of bladder tumours in the 12 months following surgery, compared to 27.3% in those who underwent conventional TURBT (trans urethral resection of bladder tumours) surgery.

According to the World Cancer Research Fund, bladder cancer is the ninth most common cancer in the world, with 430,000 new cases diagnosed in 2012.

For patients with early bladder cancer, a specialist will remove the tumours from the bladder lining using a thin telescope called a cystoscope.

The trial, co-ordinated by the Clinical Research Office of the Endourological Society (CROES, Amsterdam), recruited 965 patients from 16 countries to be randomised to either conventional “white light” TURBT or NBI-facilitated bladder tumour surgery.

“Narrow band imaging makes it easier to identify bladder tumours. It can detect small bladder tumours that might otherwise be overlooked by more conventional ‘white light’ cystoscopy,” explained Richard Bryan from the University of Birmingham.

Narrow band imaging technology (NBI) was developed by Olympus Medical Systems (Japan) and was first used for bladder cancer patients at the University of Birmingham and University Hospitals Birmingham NHS Foundation Trust in 2005.

“My colleague, Mike Wallace, and I immediately saw the potential of this technology,” Bryan continued, adding “now this potential has been confirmed by a large international randomised controlled trial, and the results can only be good news for bladder cancer patients worldwide.”

On behalf of CROES, Professor Jean de la Rosette said, “Conducting a trial of this size across 16 countries has been a great achievement for CROES and the Trial Management Group. We appreciate the time and effort that urologists across the globe have committed to this study, and these results are just the start of the study outputs. We are extremely grateful to Olympus for their support from the outset - so often such technologies...
are not robustly assessed in this way, and this represents a breakthrough for urology and CROES.”

Olympus stated: “We are pleased to see the widespread use of NBI globally, and have been delighted to support this trial in the bladder cancer setting. We will continue to work very closely with urologists to further understand their needs and challenges, and will strive to develop technologies such as NBI that could contribute to improving patient care across the globe.”


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