Improved radical surgery techniques provide positive outcomes for bladder cancer patients

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Bladder cancer patients who have radical surgery at university hospitals can benefit from excellent local control of the disease, acceptable clinical outcomes and low death rates, according to research in the August issue of the urology journal *BJUI*.

Researchers studied 2,287 patients who had radical cystectomy surgery, where the bladder is removed, together with nearby tissue and organs as required. The surgery was performed at eight Canadian academic centres between 1998 and 2008.

The study found that there were three independent factors, apart from pathological stage at surgery, that influenced survival rates. Patients who smoked had lower survival rates, while patients who had pelvic lymphadenectomy - lymph nodes removed from the pelvic area - had higher survival rates, as did patients who received adjuvant chemotherapy, which aims to destroy microscopic cancer cells left after surgery.

However, the researchers found that neoadjuvant chemotherapy - which is often recommended prior to surgery to improve outcomes - tends to be under utilised for bladder cancer in Canada.

"Recent advances in combined radiation with chemotherapy have challenged the role of radical cystectomy (RC) with pelvic lymphadenectomy, which is used to treat muscle invasive and refractory non-muscle invasive bladder cancer" says co-author Dr Wassim Kassouf,
from McGill University Health Centre, Quebec, Canada.

"These bladder-preservation strategies are potentially attractive in terms of health-related quality of life and cancer outcomes, but they only tend to work in highly selected patients.

"Advances in RC surgery have improved surgical care and techniques and reduced complications and mortality rates. The aim of our study was to evaluate a contemporary series of patients with bladder cancer to assess the clinical outcomes and identify any variables that affected their long-term health."

Key findings of the study included:

- 79% of the patients were male, the median age was 68 and the average follow-up of live patients was just over 29 months. 66% reported a family history of tobacco smoking.
- More than three-quarters of the patients had high-grade tumours. Pathological specimen examination revealed no evidence of cancer in 7% of patients, muscle invasive disease in 73% and positive nodal involvement in 25%.
- Adjuvant chemotherapy was offered to 19% of patients and neoadjuvant chemotherapy to just over 3%.
- All patients had previously undergone transurethral resection of bladder tumours and the median time from this to RC surgery was 49 days. This is similar to waiting times reported in international studies conducted in Sweden (49 days), the USA (42 days) and Germany (54 days).
- The 30, 60 and 90-day death rates were 1.3%, 2.6% and 3.2% respectively. Cancer returned in 33% of patients within a median of 10 months. Local recurrence rates were 6% in the overall group and 4% in the organ-confirmed node-negative group.
- The five-year overall, recurrence-free and cancer-specific
survival rates were 57%, 48% and 67% respectively.

- Multivariate analysis showed that lower pathological stage, negative surgical margins, receipt of adjuvant chemotherapy, performance of pelvic lymphadenectomy and an absence of smoking were associated with prolonged disease-specific and overall survival.

"Our study shows that very good results can be achieved when RC is performed at academic centres within a universal healthcare system and that it remains an effective clinical option for treating patients with bladder cancer" says Dr Kassouf.


Provided by Wiley

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