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Open vs. Minimally Invasive Radical Prostatectomy

Each surgical approach conferred certain advantages, but conclusions about outcomes are limited by data collection methodology.

Recent analysis of data on the prostate-specific antigen (PSA) test might soon diminish the use of PSA-based screening for prostate cancer ([JW Oncol Hematol Sep 9 2008](#)). Nonetheless, while prostate cancer–diagnosis rates continue to rise, so does the use of curative-intent local therapy. Laparoscopic prostatectomy with or without robotic assistance (also known as minimally invasive radical prostatectomy [MIRP]) has gained a popularity that is driven by patient expectations of better experiences with MIRP than with open radical retropubic prostatectomy (RRP), as well as by direct-to-consumer advertising ([JW Oncol Hematol Apr 14 2009](#)).

To assess outcomes after MIRP versus RRP, investigators analyzed Medicare claims data from the Surveillance, Epidemiology, and End Results (SEER) registry on 6899 men who had undergone RRP and 1938 men who had undergone MIRP from 2003 through 2007. All patients were 65 or older. Use of MIRP in this cohort increased from 9% of patients in 2003 to 43% in 2006 and 2007.

Analysis adjusted for a variety of clinical and demographic variables, as well as year of surgery and individual surgeon volume, showed that MIRP was associated with several substantially better outcomes than RRP, including shorter hospital stays, less need for heterologous blood transfusions, and lower risks for respiratory complications within 30 days and for anastomotic strictures from 1 month through 1 year. However, MIRP patients were significantly more likely than RRP patients to experience postoperative genitourinary complications as well as long-term incontinence and erectile dysfunction (>18 months after the procedures). The need for additional, postoperative cancer therapies did not differ significantly by surgical approach.

Comment: The authors acknowledge that the use of Medicare claims data limits the applicability of their results, in particular with respect to postprocedural reporting of conditions such as impotence and incontinence. In addition, the findings might not apply to younger men. Current data suggest that outcomes depend more on the experience of the urologist than on the modality of the procedure.

— [Robert Dreicer, MD, MS, FACP](#)

Published in [Journal Watch Oncology and Hematology](#) November 10, 2009

Citation(s):

Hu JC et al. Comparative effectiveness of minimally invasive vs open radical prostatectomy. *JAMA* 2009 Oct 14; 302:1557.