

Major new study suggests younger men need to review priorities with time after surgery for high-risk prostate cancer

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Madrid, 22 March Does age affect the outcomes of men after radical prostatectomy for high-risk prostate cancer? Does a long post-operative cancer specific survival make a difference in outcomes in such patients? A major new study suggests that both the age of the patient and the time survived since the operation have a significant impact in terms of cause of death. In practical terms this means that, for young men with high-risk prostate cancer, doctors may have to re-evaluate long-term clinical priorities with increasing time since surgery. This study is being presented at the European Association of Urology conference in Madrid.

These conclusions are based on the efforts of a multi-institutional international collaboration (the EMPACT group) developed to record long-term outcomes of patients classified as having “high-risk” prostate cancer (see below for definition*) and treated with radical prostatectomy. The study team was able to compile a database of 7650 patients from 14 different tertiary care centres in Italy, the USA, France, Belgium, Germany, Poland, Switzerland, and the Netherlands. Within this population, they were able to identify 612 patients treated with radical prostatectomy (RP) over a 26 year period, from 1987 to 2013 who were under the age of 60. The median follow up time was of 89 months. For each patient the number of cancer-specific related deaths (CSM) were recorded, and compared with the number of non-cancer related deaths (OCM).

They found that in patients younger than 60 years of age, there was a higher probability of dying of prostate cancer than of other causes in the first 10 years after a radical prostatectomy operation. However, after that initial period, cancer deaths diminish and other causes of death become more significant. This means that with increasing time since radical prostatectomy, care for these patients should gradually shift from prioritising prostate cancer towards prioritising other health risks (such as heart disease), even though regular urological check-ups should continue.

	Probability of succumbing to Prostate cancer after 5 yrs from last assessment (CSM)	Probability of succumbing to other causes (OCM) after 5 yrs from last assessment
Time of last assessment	-	-
After 5 years from surgery	7.3%	2.6%
After 8 years from surgery	6.7%	5.8%
After 10 years from surgery	5.3%	9.9%

Commenting, lead author Dr Marco Bianchi (Ospedale San Raffaele, Milano, Italy) said:

“These results confirm that if you are under 60 when you undergo a radical prostatectomy you need close follow-up, concentrating on possible cancer recurrence for the first 10 years. After that time, patients should worry less about prostate cancer and priorities may need to shift to other health risks, even though regular urological check-ups should be continued.

What this means in practice is that each patient needs close, personalised regular monitoring, where the urologist should not focus only on prostate cancer features, but also on the general health status of the patients. This is particularly important especially with increasing time after surgery, since new comorbidities, such heart disease, may develop and become a more immediate risk to the patient’s health”.

**High risk was defined according to the D’Amico criteria (PSA>20 and/or cT3 or higher and/or biopsy Gleason sum 8-10).*

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Notes for Editors

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The 15th European Association of Urology conference takes place in Madrid from 20-24th March. This is the largest and most important urology congress in Europe, with up to 13,000 expected to attend. Conference website <http://eumadrid2015.uroweb.org/>

Abstract Nr: 634

Long-term survival patterns of young patients with high risk prostate cancer treated with radical prostatectomy. Results of a multi-institutional, conditional survival analysis

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Introduction & Objectives

Since the introduction of PSA in clinical practice, prostate cancer (PCa) has faced a stage migration towards more localized disease. However, in patients with a long life expectancy with high-risk PCa (HRPCa) the risk to die from PCa is not negligible and may change significantly according to the time elapsed from surgery. The aim of the study was to evaluate long term survival patterns of young patients treated with radical prostatectomy (RP) for HRPCa.

Material & Methods

We evaluated data of 7,650 patients treated with RP at 14 tertiary care centers between 1987 and 2013 for HRPCa defined as at least one of the following adverse characteristics: PSA>20, cT3 or higher, biopsy Gleason sum 8-10. For the purpose

of these analyses, only patients aged 60 years or less were included (n=612). First, we estimated cancer specific survival (CSS) and overall survival (OS) rates using the Kaplan-Meier method. Subsequently, univariable and multi-variable competing risk analyses were employed to identify predictors of cancer specific (CSM) and other cause mortality (OCM). Covariates consisted of age at surgery, Charlson comorbidity index (0 vs. ≥ 1), year of surgery, pathological Gleason score (GS; 6 vs. 7 vs. 8-10), surgical margins status (SM), lymph-node invasion (LNI), pT stage (pT2 vs. pT3a vs. pT3b-pT4) and adjuvant radiotherapy. Third, competing risks Poisson regression methodology was used to assess CSM and OCM rates at 5 and 10 years after RP. Finally, the same analyses were repeated in order to assess the probability of surviving additional 5 years in patients who survived 5, 8 and 10 years after RP.

Results

Mean age at diagnosis was 56 years (median 57 years; range 39-60). Mean follow-up time was 90 months (median 89). Overall, 57 (9.3%) and 37 (6.0%) patients succumbed to CSM and OCM, respectively. Within the overall cohort, CSS rates at 5, 10 and 15 years were 93.9, 87.0 and 82.2, respectively. The OS rates at 5, 10, and 15 years were 91.0, 82.1 and 69.6%, respectively. At multi-variable competing risks analyses predicting CSM, year of surgery, GS, pT stage, SM status and LNI emerged as significant predictors of PCa death, after adjusting for other cause mortality (all $p \leq 0.02$). Conversely, none of the covariates was significantly associated with OCM (all $p \geq 0.1$). Within the overall population, the baseline 5 and 10 years competing risk CSM and OCM rates were 5.9 and 12.5% vs. 3 and 5.4%, respectively. Among those patients who survived 5 and 8 years after surgery, the probability of succumbing to PCa within the next 5 years prevailed that of experiencing OCM. Specifically, the 5-years CSM and OCM rates given a 5 and 8 years of survivorship after RP were 7.3 and 6.7% vs. 2.6 and 5.8%, respectively. Conversely, when a 10-years survivorship after RP was achieved, OCM became the main cause of death during the next 5 years (9.9 vs. 5.3 for CSM).

Conclusions

In young patients with high risk PCa PCa represents the main cause of death during the first 10 years after RP. Even though no predictors of OCM were identified at MVA, mortality not related to PCa becomes the main cause of death after 10 years of survivorship. Accordingly young patients with HRPCa should be strictly followed-up for the first 10 years after RP. However, a comorbidity profile reassessment should be suggested after 10 years from RP in order to better stratify patient prognosis

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