

Will delays from the coronavirus pandemic affect localised prostate cancer outcomes?

Sean Ong^{1,2}, Dominic Bagguley^{1,2}, Declan Murphy^{1,2}, Nathan Lawrentschuk^{1,2,3}

¹E.J. Whitten Foundation Prostate Cancer Research Centre at Epworth, Epworth HealthCare, Melbourne, Australia

²Department of Urology, Peter MacCallum Cancer Centre, Melbourne, Australia

³Department of Urology, Royal Melbourne Hospital, Melbourne, Australia

Introduction

- The global coronavirus (COVID-19) pandemic presents a unique situation whereby governing bodies seek to balance the risks of deferring treatment with the preservation of hospital resources.
- For the moment, there are no widely accepted “COVID-19 era” management guidelines for patients with prostate cancer.
- Many difficult decisions need to be made on a case by case basis, bearing in mind hospital capabilities, disease risk, patient factors and of course patients’ mental health and anxiety.

Aims

To review the evidence for the safety of delayed radical prostatectomies and explore the role of androgen deprivation therapy (ADT) in this unprecedented situation

Methodology

- Important topics relating to the review were identified.
- Google scholar, PubMed and Cochrane library were then searched to identify evidence suited to the topics.
- Key words “prostate”, “prostate cancer”, “radical prostatectomy”, “neoadjuvant therapy” were used to standardise the search amongst the search engines. The search included but was not limited to these key words.

Localized favorable risk prostate cancer ie. Gleason 3+3, Gleason 3+4 (<10%)



Delayed treatment with active surveillance

Localized unfavorable risk prostate cancer ie. Gleason 3+4 (<10%) and above



Delays of up to 12 months with no androgen deprivation therapy is NOT associated with adverse outcomes

Results

Favourable risk prostate cancer

- Delayed treatment of favourable risk prostate cancer has been a widely discussed topic in urology during the rise of active surveillance over the last decade.
- Several studies have shown that low risk prostate cancer can be safely monitored without intervention which should continue even during the COVID-19 pandemic.

Unfavourable risk prostate cancer

- Fossati et al¹ studied 4156 men who received a radical prostatectomy from 2006-2012. The authors found that time from diagnosis to treatment was significantly associated with an increased risk of BCR and CR in high risk patients only. They were able to estimate that the risk of BCR and CR only becomes clinically significant at around 12 months after diagnosis.
- Boorjian et al² found similar results. Their study of 3149 men found that time to radical prostatectomy was not a predictor of BCR even in the high risk group of up to 12 months
- O’Callaghan et al³ also found no significant association with delay to treatment and prostate cancer specific mortality when analysing all risk groups.
- Despite the delay in treatment in the studies above, androgen deprivation therapy was not utilised in these cohorts to stop disease progression.
- Other reports have found results both in line with the above or contradicting these results. However, these studies were either only analysed one category of risk or split time as a dichotomous variable

Conclusions

- For prostate cancer, urology teams will need to manage an already overcrowded list of patients needing radical prostatectomies.
- Fortunately, the literature demonstrates that delays of up to 12 months with no ADT are not associated with adverse outcomes post operatively for all categories of localised prostate cancer.

The authors would like to acknowledge the ongoing funding support of both the EJ Whitten Foundation Prostate Cancer Research Centre and The Epworth Medical Foundation.

References

1. Fossati N, Rossi MS, Cucchiara V, et al. Evaluating the effect of time from prostate cancer diagnosis to radical prostatectomy on cancer control: Can surgery be postponed safely? *Urol. Oncol. Semin. Orig. Invest.* (2017).
2. Boorjian SA, Bianco FJ, Scardino PT, Eastham JA. Does the time from biopsy to surgery affect biochemical recurrence after radical prostatectomy? *BJU Int.* (2005).
3. O’Callaghan ME, Shi Z, Kopsaftis T, Moretti K. Prostate cancer outcomes and delays in care. *Int. Urol. Nephrol.* (2017).