**Shared decision making in prostate cancer screening**

**Story from the front lines**

A man in his late 60s with history of hepatic cirrhosis and prostate cancer treated with remote prostatectomy and radiation therapy was admitted for evaluation of recurrent hematuria. His prostate cancer was diagnosed a few years earlier after a routine screening PSA. When his PSA came back mildly elevated, it was recommended he undergo a prostate biopsy. Workup showed early stage prostate cancer. He opted for a radical prostatectomy as he was concerned his cancer could progress. Seven years later, a follow-up PSA was elevated indicating biochemical recurrence. Nuclear imaging revealed no metastases. He underwent salvage radiotherapy. Shortly thereafter he began experiencing episodes of hematuria, presumably from radiation induced cystitis. These became more frequent, requiring numerous hospital visits for emergent red cell transfusion. Ultimately, cystectomy was required to stop his persistent bleeding. Reflecting back on his experience, the patient and his wife expressed regret about having undergone PSA screening, surgery and radiation therapy. They reported wishing they’d had a better understanding of the risks and benefits of each of these, particularly the initial screening.

**Teachable moment**

This case illustrates significant physical and emotional harm that may result from common diagnostic and therapeutic interventions – even those that are generally considered the “standard of care.” Was performing radiation therapy a mistake? Following presumed disease recurrence with PSA elevation, it was reasonable to treat with radiation therapy given its established indication for that purpose. Was a radical prostatectomy indicated in his case? Studies have shown mixed results on radical prostatectomy versus watchful waiting in patients with early stage prostate cancer. While a recent study\(^1\) suggested better outcomes with radical prostatectomy for men under age 65 at time of diagnosis, the PIVOT trial\(^2\) showed equivalence of the two strategies unless PSA at diagnosis exceeded 10. The latter study may be more applicable to this patient as it studied patients whose prostate cancer was typically detected following PSA screening whereas the former study’s patients were ones who had undergone workup following appearance of symptoms in the pre-PSA era. As such, one might argue that the initial prostatectomy could have been avoided or perhaps deferred at the outset. The patient had opted for surgery for concern that his cancer would spread and lead to a bigger problem. While he was made aware of possible complications from surgery, he was not fully aware that watchful waiting may have been an acceptable alternative.

Should he have been initially screened for prostate cancer with PSA testing? Certain current guidelines and those from the time he was tested recommend screening men of his age\(^3\). However, it seems that he was not aware of the implications of a positive test and did not fully understand the risks and benefits of screening. Had he known that major complications could occur as a result of downstream treatments, he may not have chosen to undergo a screening test associated with limited potential
benefits. While we cannot know with certainty whether this patient was overdiagnosed, he did have major complications from treatment including severe bleeds, multiple hospitalizations for transfusion, cystectomy, in addition to a marked emotional impact on him and his family that have resulted in tremendous reduction in his quality of life. It is plausible that diagnosing his prostate cancer at such an early stage and the treatment that ensued were avoidable.

Guidelines on prostate cancer screening are evolving. The US Preventive Services Task Force (USPSTF) no longer recommends prostate cancer PSA-based screening, and the American Cancer Society now recommends screening only after discussing risks and benefits. Regardless of the guidelines followed, a shared decision with the patient, and truly informed consent based on discussion of potential benefits and harms of screening and treatment, remain of key importance.

References


