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EDITORIAL

Report from Durham

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We feature three outstanding and timely review articles. Tamar *et al*. present an update on urine markers for monitoring prostate cancer. In the United States, the only commercially available urine biomarker is Prostate Cancer Gene 3. This test is not as widely available, as is PSA, but several reference labs offer the test, some insurance plans cover it, and selected urologists offer it mostly for patients who have had a negative biopsy and who still have an elevated PSA. It remains to be seen what other urine markers, used alone or in combination, will enter the clinical arena and when. The second review by Saylor *et al*. focuses on bone health and prostate cancer. With a new agent, denosumab, likely soon available to compete with the bisphosphonates, this remains a hot topic. The authors propose clinicians use the WHO fracture risk assessment model in patients treated with androgen deprivation therapy (ADT) to determine optimal bone health management. In the third review article, Thompson *et al*. provide a nice overview of caveolin-1.

Snyder *et al*. conducted a structured literature review to determine the impact of diabetes on prostate cancer outcomes. This article shows that diabetes does impact treatment decisions and outcomes. As the global obesity epidemic worsens, the incidence of diabetes will also increase, magnifying the importance of this systemic review.

The next four articles focus on prostate biopsy. Nguyen *et al*. conducted a very novel study that compared faculty and resident performance related to prostate biopsy pain. While biopsies conducted by resident doctors were associated with statistically higher pain scores, the magnitude of the difference was small and the authors concluded that both faculty and residents (under staff supervision) were competent to perform transrectal ultrasound (TRUS) prostate biopsy. Taira *et al*. next report on 373 patients who underwent transperineal template-guided mapping biopsy (TTMB). For the 79 men who had an initial biopsy, the cancer detection rate was an astonishing 75.9%. For patients with one, two, and three or more prior negative biopsies, the rates were 55.5%, 41.7% and 34.4%, respectively. Alternatively, Labanaris *et al*. studied a similar cohort of 260 men using a TRUS scheme of 18 cores plus additional directed cores based on suspicious conventional and functional MRI. For those who had suspicious imaging, the TRUS 18 plus directed core strategy had a 73.9% detection rate. While these two studies have slightly different cohorts, the detection rates of 75.9 and 73.9% are strikingly similar. This begs the fundamental question of optimum strategy pitting TTMB vs conventional/functional MRI-TRUS. From a cost perspective, the TTMB would require the cost of anesthesia in most clinical settings and the (TRUS) strategy would have the added cost of MRI. It is unclear which (if either) of these approaches will emerge as the most clinically useful. Finally, Pepe *et al*. look at transurethral resection of the prostate to diagnose prostate cancer in those who have had prior negative saturation biopsy, finding 15 of 75 (20%) had prostate cancer. Sometimes I wonder if we have become too good at diagnosing prostate cancer, recognizing that these articles do not address the clinical significance of all the 'additional' cancers found by these aggressive approaches.

With regard to treatment of localized prostate cancer, we feature several interesting articles. Kwak *et al*. studied capsular incision after radical prostatectomy, showing that it does influence biochemical recurrence adversely. Defined as tumor extending into the inked margin (except apex) without documented extracapsular extension, capsular incision has also been termed, 'iatrogenic positive margins', 'pTx', and implies surgeon error. Over the last 5 years, the rate of this phenomenon comparing open vs robotic prostatectomy has been hotly debated. Another hot topic is hypofractionated external beam radiotherapy, and Tombolini *et al* report that this approach may not increase late urinary morbidity.

Moreira *et al*. report on their analysis of data from a very large radical prostatectomy patient population to determine whether published predictive models perform equally well in black and white patients. While there was some variability, in practical terms all seven of the predictive models studied predicted recurrence well for both racial groups. Popovic *et al*. studied syndecan-2 expression in a series of radical prostatectomy specimens, suggesting a potential new biomarker. Mwamukonda *et al*. studied Transmembrane Protease Serine 2-Early Response Gene fusion in 132 patients via micro-dissection, finding potential clinically useful biomarker data. In a related biomarker investigation, Ho *et al*. studied constitutional DNA for a polymorphism in FGFR4 in a cohort of over 800 patients, finding no association with prostate cancer risk and thus refuting other studies.

In the exciting area of multi-modality therapy for high-risk prostate cancer, Ploussard *et al*. conducted a randomized controlled trial of post radical prostatectomy adjuvant paclitaxel plus ADT versus ADT alone. Although we have no current data on efficacy, the trial suggests adequate safety and treatment did not impact urinary control recovery after surgery. Finally, Lu *et al*. conducted basic science experiments to propose that NADPH oxidase inhibitors may, in the future, be able to replace ADT in neoadjuvant therapy with radiotherapy.

Thank you for your continued support.

JW Moul
Co-Editor