RadTox™
Monitoring Real-Time Tumor Response

Case Study

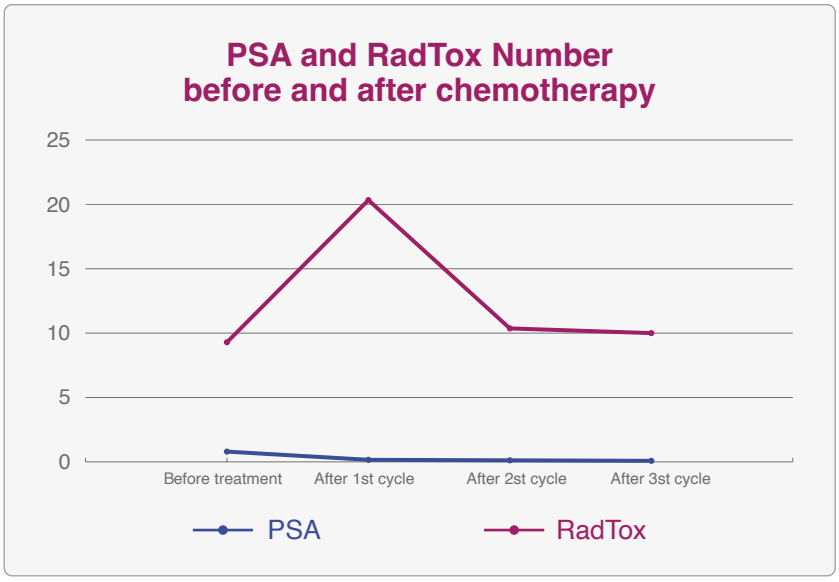
RadTox™ for Prostate Cancer Treatment Monitoring: A Start-up CEO's Personal Story

When Eugene learned of his diagnosis of metastatic prostate cancer, it felt as though the sky had fallen. Such news would shake anyone, especially someone still relatively young with numerous aspirations left in life. At 55, Eugene had already achieved much—a happy family and a successful career as a startup CEO. He maintained a robust physical regimen, enjoying outdoor activities like badminton and golf on weekends.

Despite the initial shock, Eugene resolved to confront his cancer with a positive outlook. Following his doctor's guidance, he commenced treatment with two hormone medications, including Orgovyx, for 12 days before undergoing six cycles of chemotherapy, spaced three weeks apart. Apart from the PSA indicator, no other monitoring biomarkers were employed.

When approached about the RadTox™ test for cancer therapy response monitoring, Eugene was intrigued. Research has shown that assessing both PSA and cfDNA (circulating free DNA) can offer superior prognostic insights compared to relying solely on PSA (1). Although not yet standard practice, cfDNA measurement holds promise, albeit with limited clinical application. Eugene believed that combining PSA and RadTox™ tests could offer a more comprehensive monitoring tool during his treatment. He opted to undergo both tests before commencing chemotherapy and before and after each cycle. Currently, he has received results from four testing sessions, all indicating favorable and stable conditions—a prognosis consistent with recent PET scan results, showing a positive response to therapy.

PSA traditionally serves as a biomarker for prostate cancer, with levels rising in affected individuals. However, its specificity is limited, as other conditions can also elevate PSA levels. Similarly, cfDNA levels, as measured by the RadTox™ test, increase in various cancers, including prostate cancer, though elevations may not exclusively stem from cancer. While neither biomarker is a specific diagnostic, they hold value in prognostic and therapeutic response assessments. Combining the two may offer a more reliable indicator of Eugene's therapy response.



In December, following Eugene's initial two chemotherapy cycles and accompanying PSA and RadTox tests, we had an opportunity to speak with him about his cancer journey. "I initially noticed urinary urgency and increased frequency," Eugene recounted. "I also observed a pink tint in my urine, which didn't seem right." Fortunately, Eugene took his symptoms seriously, promptly seeking medical attention. Despite initial tests for urinary tract infection (UTI) yielding negative results, subsequent investigation revealed an enlarged prostate. Prescribed medication failed to alleviate his symptoms, prompting further investigation. Upon testing his PSA, Eugene received a concerning result of 7, which persisted upon retesting two months later. Subsequent MRI and biopsy confirmed metastatic prostate cancer, altering the course of Eugene's life.

These past months have posed significant challenges for Eugene, requiring him to navigate life with cancer while preserving his mental well-being. Importantly, he finds unwavering support from his family, particularly his mother and wife. "I feel much better now and more encouraging with the explanation of the RadTox™ test result from Dr. Paul Okunieff, the prostate cancer radiation oncologist at University of Florida at Gainesville and co-developer of the RadTox™ test ," Eugene remarked. "I'm grateful for the positive treatment and monitoring outcomes." With three therapy cycles completed, positive results from PSA, and RadTox™ tests, and PET scans offer Eugene encouraging news.

We extend our best wishes to Eugene for a speedy recovery and hope that RadTox™ continues to aid in his ongoing cancer treatment monitoring.