

CLINICAL VIGNETTE

Catatonic Depression after Nonindicated Prostate Cancer Screening

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Clinical Presentation

This is a 70-year-old male with benign prostatic hypertrophy (BPH) presenting with severe catatonic depressive symptoms for two months. He reports passive suicidal ideation without active suicidal or homicidal ideation. The patient had been minimally ambulatory for two months due to catatonic depressive symptoms. He was last seen for a routine yearly checkup two months prior. A prostate specific antigen (PSA) serum laboratory test was elevated at 26.2 ng/ml. He also recently received news of the diagnoses of terminal cancer in multiple family members (leukemia, lymphoma, sarcoma), with a cousin dying from acute leukemia.

The patient was informed his elevated PSA indicated he was at risk for prostate cancer and recommended a prostate biopsy and transrectal ultrasound. He was referred to urology for additional prostate cancer testing and possible staging.

Upon receipt of this information, he became fearful of end stage cancer. His cousin had just died from cancer. He stopped eating and spent all of his time in bed, progressing to catatonic depression with anhedonia and 30 pounds weight loss. His wife contacted his primary care provider who referred the patient to the UCLA hospitalist service for admission with concerns for metastatic prostate cancer and failure to thrive.

Upon admission, it was explained that PSA screening for prostate cancer was not recommended in individuals over 70 years old. The United States Preventative Task Force (USPTF) recommending against routine population screening with digital rectal examination (DRE) and or prostate-specific antigen in this age range. Physical examination including the digital rectal examination was unremarkable, without any prostrate tenderness to palpation or nodularity, and no lymphadenopathy. Significant examination findings included dehydration, with significant skin tenting and low jugular venous distention. The patient's computed tomography (CT) scan of the head was unremarkable, his abdominal and pelvic imaging CT was unremarkable with no evidence of lymphadenopathy or malignancy. Laboratory examination was notable for mild leukocytosis, bacteria in his urine, and mild pre-renal azotemia with elevated blood urea nitrogen to 40 mg/dL His examination confirmed his partner's history that he had very little oral consumption of food and fluids. He reported mild dysuria and was started on IV ceftriaxone. Inpatient psychiatry recommended fluoxetine and outpatient referral to mental health services. He was started on fluoxetine 20 mg

daily and was discharged home to finish a course of amoxicillin/clavulonate for possible urinary tract infection. The patient was also diagnosed with major depression and catatonia as a result of his screening. Outpatient prostate specific antigen after discharge decreased after treatment of his urinary tract infection to 22.5 ng/ml (normal for his age range being 6.5 ng/ml). His PSA elevation was attributed to his urinary tract infection and BPH and did not warrant further investigation. He continues to see psychiatry without adjustment of selective serotonin reuptake inhibitor antidepressant.

Discussion

Cancer screening may present real risks and mental health for patients, especially for low yield cancer screening with a high rate of false positives and poor predictive value, such as the PSA test. This patient was otherwise in his usual state of health prior to this cancer screening. His mental health decline and catatonic depression can be linked directly to anxiety about end-of-life medical conditions, including potential terminal diagnosis with additional psychosocial stressors of losing friends and family to terminal cancer. We briefly review outpatient prostate cancer screening recommendations and the mental health burdens of cancer screening and diagnosis.

The USPTF recommends against PSA-based screening for prostate cancer in men 70 years and older, with a grade D in regards to the evidence, with a grade C recommendation for men aged 55 to 69 years of age, based on the individual patient's family history and risk factors.¹ One study noted similar prostate cancer mortality with PSA testing versus the local community standard of care.² The USPFTF revised guidelines regarding screening PSA concluding that in men over the age of 70 there is only grade "D" level evidence and in men younger than 70 there needs to be a discussion regarding the lack of sensitivity for PSA serum screening.¹ This was followed by the 2020 landmark "Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Trial" that confirmed the non-inferiority of using community standard of care for prostate cancer screening. This confirms the USPTF's recommendation against PSA-based screening for men over 70, such as in our patient.³ The number needed to treat was 769 based on the USPTF's task force.⁴ Notably, 240 of the 769 men with a false positive PSA had negative follow-up biopsies. A significant number of the men who underwent prostate biopsy also experienced significant issues with sexual dysfunction and

urinary incontinence.⁴ A recent review article noted “mixed” results. This review included all major cancers. An interesting observation was that “screening with a known cancer precursor or risk factor” led to both positive outcomes in decreasing patient concerns but also increased the risk of anxiety and depression in patients, related to the cancer screening.⁵ There appears to be some correlation with the risk of developing worsening cancer related anxiety and depression in patients with a predilection for pre-existing generalized anxiety disorder and or depression. A meta-analysis of 22 studies examined patient distress levels before testing and confirmed that a patients’ underlying psychologic distress should be considered prior to screening. Appropriate interventions, including, counseling, and further mental health services be offered prior to initiating age appropriate cancer screening.⁶ In this patient prostate cancer screening was not recommended and harm and psychosocial stressors from testing outweighed the benefits of early prostate cancer detection.

Conclusion

There are real mental health risks in cancer screening, and the amount of anxiety and depression associated with a potential cancer diagnosis can lead to significant psychiatric comorbidities. We recommend reviewing current cancer screening guidelines, particularly prostate cancer screening guidelines, and discussing the implications and the mental health burden of screening prior to ordering tests.

Based on this vignette, screening for mental health disorders and psychological distress should be done prior to cancer screening. Tools such as the generalized anxiety disorder (GAD7) survey and patient health depression questionnaire PHQ2/9 can be used to evaluate risk of screening related anxiety and depression.

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