
Prostate specific antigen only progression of prostate cancer.
Moul JW.

Abstract
PURPOSE: Introduction of the prostate specific antigen (PSA) serum marker for prostate cancer and the subsequent PSA era from 1988 to the present have dramatically altered the diagnosis of the disease. The early to mid 1990s diagnosis boom resulted in a huge increase in clinically localized and early stage disease treatments. Radical prostatectomy rates increased from 17.4 to 54.6/100,000 between 1988 and 1992, and age adjusted rates increased 2 to 4-fold for men in the fifth and sixth decades of life. Since the late 1990s clinicians have been seeing the effects of this diagnosis and localized treatment boom, in that many men each year are experiencing PSA only disease recurrence. Given that the majority are relatively young and otherwise healthy, treatment of PSA only recurrence requires approaches that not only improve survival, but also preserve quality of life. A comprehensive overview of the definition of PSA only recurrence, staging controversies and the wide variety of treatments to be considered is provided.

MATERIALS AND METHODS: A literature review and overview of the topic of PSA only recurrence after prior clinically localized prostate cancer treatment were performed.

RESULTS: For radical prostatectomy cases PSA only recurrence is broadly defined as any elevation of PSA postoperatively. For radiation treated patients the 1997 American Society for Therapeutic Radiology and Oncology guidelines specify 3 consecutive elevations of PSA after posttreatment PSA nadir is achieved. As localized treatment series in the PSA era have matured, and database and statistical support have improved, a number of useful models to predict PSA only recurrence have emerged. These models are based on traditional prognostic markers, such as pretreatment PSA, and grade and stage of disease as well as emerging molecular and cellular biomarkers. Although bone scans and pelvic computerized tomography are commonly used for re-staging at PSA only recurrence, recent study suggests that their value is limited unless PSA recurrence exceeds 30 to 40 ng./ml. 111Indium capromab pendetide radionuclide scan, which has been approved for radical prostatectomy PSA only recurrence, may be helpful to determine cases best suited for salvage radiotherapy versus systemic hormonal therapy, although more study is needed. Treatment of PSA only recurrence is divided into 2 main categories of salvage local treatments and systemic therapy. The principal dilemma is the inability to determine definitively whether PSA only recurrence is solely due to local progression or distant micrometastases. External beam radiation is the main local salvage treatment for radical prostatectomy recurrence, and cryotherapy, salvage prostatectomy and salvage brachytherapy are options for radiation recurrence. Proper patient selection is critical to the success of all salvage local treatments. Traditional hormonal therapy is the mainstay of systemic treatment for PSA only recurrence, although nontraditional approaches, such as intermittent and low dose hormonal therapy, are under study. Emerging chemopreventive agents, such as vitamins, minerals and other supplements, may have a future role in treatment.
CONCLUSIONS: PSA only recurrence after prior local prostate cancer treatment remains a common problem facing clinicians.

PMID: 10799151 [PubMed - indexed for MEDLINE]