Low-risk Prostate Cancer: Identification, Management, and Outcomes.

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Abstract

**CONTEXT:** The incidence of low-risk prostate cancer (PCa) has increased as a consequence of prostate-specific antigen testing.

**OBJECTIVE:** In this collaborative review article, we examine recent literature regarding low-risk PCa and the available prognostic and therapeutic options.

**EVIDENCE ACQUISITION:** We performed a literature review of the Medline, Embase, and Web of Science databases. The search strategy included the terms: prostate cancer, low risk, active surveillance, focal therapy, radical prostatectomy, watchful waiting, biomarker, magnetic resonance imaging, alone or in combination.

**EVIDENCE SYNTHESIS:** Prospective randomized trials have failed to show an impact of radical treatments on cancer-specific survival in low-risk PCa patients. Several series have reported the risk of adverse pathologic outcomes at radical prostatectomy. However, it is not clear if these patients are at higher risk of death from PCa. Long-term follow-up indicates the feasibility of active surveillance in low-risk PCa patients, although approximately 30% of men starting active surveillance undergo treatment within 5 yr. Considering focal therapies, robust data investigating its impact on long-term survival outcomes are still required and therefore should be considered experimental. Magnetic resonance imaging and tissue biomarkers may help to predict clinically significant PCa in men initially diagnosed with low-risk disease.

**CONCLUSIONS:** The incidence of low-risk PCa has increased in recent years. Only a small proportion of men with low-risk PCa progress to clinical symptoms, metastases, or death and prospective trials have not shown a benefit for immediate radical treatments. Tissue biomarkers, magnetic resonance imaging, and ongoing surveillance may help to identify those men with low-risk PCa who harbor more clinically significant disease.

**PATIENT SUMMARY:** Low-risk prostate cancer is very common. Active surveillance has excellent long-term results, while randomized trials have failed to show a beneficial impact of immediate radical treatments on survival. Biomarkers and magnetic resonance imaging may help to identify which men may benefit from early treatment.

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