Iodine-125 permanent interstitial implantation is associated with long-term, biochemical control of localized prostate cancer, according to a study published online March 28 in the *Journal of Medical Imaging and Radiation Oncology*.

Craig Wilson, M.B.B.S., from Sir Charles Gairdner Hospital in Nedlands, Australia, and colleagues treated consecutive 207 patients with localized prostate cancer (September 1994 to November 2007) with iodine-125 permanent interstitial implantation. Three times a month, post-therapy assessment was conducted for clinical review and biochemical (prostate-specific antigen [PSA]) evaluation.

The researchers found that over a median follow-up of 7.8 years the 10-year biochemical disease-free survival (bDFS) for the entire cohort was 89 percent. By pre-treatment risk group, the 10-year bDFS estimates were 96 percent for low-risk, 83 percent for intermediate-risk, and 50 percent for high-risk disease. Pre-treatment PSA was an independent predictor of bDFS in multivariate analysis. There was not a significant effect of D90 dose (maximum dose delivered to 90 percent of the prostate volume) on bDFS. Late grade 3 or higher urinary and rectal toxicities had peak incidences of 10.7 and 1.1 percent, respectively.

“Excellent long-term biochemical control was demonstrated with iodine-125 permanent interstitial implantation in appropriately selected patients with prostate cancer,” the authors write.

More information: Abstract
Full Text (subscription or pay ... ent may be required)