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Active Surveillance vs. Curative Treatment: Longitudinal Quality of Life 2-years after Low-Risk Prostate Cancer Diagnosis

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Background:
Active surveillance (AS) allows patients with low-risk prostate cancer (LRPC) to be monitored for disease progression, thereby avoiding or delaying invasive curative treatment (CT) (i.e., surgery or radiation) and related side effects. Here we compare quality of life (QOL) two-years after diagnosis between men who underwent CT overall and by race.

Methods:
Black and white men with LRPC were recruited through population-based cancer registries in metropolitan Detroit and Georgia. Participants were grouped by their treatment type (CT or AS). QOL measures SF-12 and EPIC-26 were assessed at baseline and 2-year follow up using mailed surveys. Differences between groups at baseline and follow-up was assessed using mixed design ANCOVA overall and stratified by race.

Results:
Of the 1688 participants enrolled at baseline, 1057 were followed-up 2-years after diagnosis. Among these, 475 underwent curative treatment, and 582 remained on AS. There were significant declines in all the QOL measures from baseline in the treatment group while there were minimal changes in most of the measures in the AS group. The time by group interaction was significant in MCS, urinary incontinence, and sexual and hormonal function. The largest decline was in sexual function in the treatment group (70 vs. 43, $p<0.001$) while there was a much smaller decline (69 vs. 64, $p<0.001$) in the AS group. These results were similar between races, but black men reported lower sexual function scores at baseline and follow-up.

Discussion:
Understanding the differences in QOL between men with LRPC who choose to pursue AS or CT and how race and socioeconomic factors may affect this is critical to interpreting guidelines and give physicians and generating patient-centered decisions about the plan of care that provides the best patient outcomes for their LRPC diagnosis.