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A Genomic Classifier Impacts Treatment Decision-Making among Patients with Biochemical Recurrence after Radical Prostatectomy: Results from the Multicenter Prospective PRO-IMPACT study.

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Abstract Text:

Background: Patients and providers have tremendous uncertainty as they decide on the appropriate timing for intervention with salvage radiation therapy (SRT) for suspected local recurrence after radical prostatectomy (RP). We prospectively evaluated the impact of a previously validated genomic classifier (the Decipher test, henceforth referred to as GC) which predicts metastasis risk after RP, on urologists' decision-making for SRT. **Methods:** 75 salvage patients were enrolled into the study by 43 urologists; 19 community and academic practices. We included patients with rising PSA after RP. Physicians provided a management recommendation prior to obtaining GC and again upon receiving results. Patients complete validated surveys on decisional quality and PCa-related anxiety and are followed for one year. In this interim analysis, we evaluated the pre-and post-GC visits. **Results:** Results were available for 69 patients. Median patient age at enrollment was 64 years; 45% had pathologic T3 stage classification and 49.3% had positive surgical margins at RP. Median 5-year predicted probability of metastases by GC was 5.9% (interquartile range [IQR] 2.8%-12.1%). GC classified 35%, 32%, and 33% as low-, intermediate-, and high-risk, respectively. Without GC, 58%, 33% and 8.7% of patients were recommended for observation, SRT, and other treatments, respectively. 39% (95% confidence interval 28-52%) of management recommendations changed post-GC, including 29% of GC low-risk patients and 65% of GC high-risk patients. Decisional Conflict Scale (DCS) scores decreased (indicating higher decision quality) after exposure to GC results (median DCS pre-GC 28 [IQR 21-42] compared with 21 [IQR 2-28] post-GC, $p < 0.001$). **Conclusions:** Knowledge of GC results was associated with treatment decision-making among patients with recurrence after RP. Patients found to be low risk for metastases by GC had higher rates of observation recommendations and patients at high risk had higher rates of SRT recommendations. Decision quality was improved among patients considering SRT after RP exposed to GC.