Patients were categorized into three risk groups: 1) men with N1 disease (N1), 2) men without N0, but who had either ≥pT3 stage, RP Gleason score ≥8, lymphovascular invasion or tertiary Gleason 5 pattern (N0 high-risk [HR]) and 3) men with no high-risk features at RP (N0IR). Decipher scores were obtained from 263 RP specimens and 25 matching biopsy specimens. Fisher’s exact test was used to compare the difference in patient risk groups. Logistic regression analysis was used to evaluate performance of Decipher for prediction of LNI. Discrimination of the Partin tables (≥2%) and combined model of Partin tables (≥2%) and Decipher (≥0.6) was assessed using c-index. Concordance of biopsy and RP Decipher (low- and intermediate- vs high-risk) was also assessed.

RESULTS: Of the 263 men, 42 (16.0%), 98 (37.2%) and 123 (46.8%) men were categorized as N1, NOHR and NOIR groups, respectively. Partin tables classified 34/42 (81%) N1, 70/98 (71%) NOHR and 66/123 (54%) NOIR men as high clinical risk (≥2%) for LNI (p = 0.0012). Decipher classified 23/42 (55%) N1, 34/98 (35%) NOHR and 35/123 (29%) NOIR as high genomic risk (<0.6) for metastasis (p = 0.013). After adjusting for Partin Tables, Decipher high genomic risk had an odds ratio of 2.3 (95% CI 1.2-4.5) as a predictor of LNI (p = 0.02). Addition of Decipher to Partin Tables improved the c-index from 0.60 (95% CI 0.53-0.67) to 0.66 (95%CI 0.57-0.75). The concordance of Decipher risk groups between matched Biopsy and RP specimens was 94%.

CONCLUSIONS: Decipher may be an important adjunct tool to improve preoperative staging that may be useful for prioritizing intermediate risk patients to ePLND. Further investigation of Decipher biopsy specimens is required to validate these findings.

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DECREASING OVERTREATMENT OF LOCALIZED PROSTATE CANCER WITH RADICAL PROSTATECTOMY: 10-YEAR TRENDS
Ithak Gokhan*, Tracy Han, Ghalib Jibara, Robert Qi, Judd Moul, Durham, NC

INTRODUCTION AND OBJECTIVES: There has been increasing emphasis on active surveillance to limit overtreatment of prostate cancer (PC). However, the actual effect that such emphasis has on the selection of patients for radical prostatectomy (RP) has not been well studied. In this study, we investigated the trends in PC pathology at yearly intervals over the past decade to verify any changes in the RP population.

METHODS: We retrospectively reviewed information from 1034 patients who underwent open RP between October 2004 and August 2015 by a single surgeon at a high-volume tertiary care center. Information was cataloged into one-year intervals. Chi-squared, Fisher’s Exact test, ANOVA, and Kruskal-Wallis test were used for data analysis.

RESULTS: There was significant in-group differences among the one-year intervals regarding pathological Gleason score (p < 0.01), pathological staging (p < 0.04), extracapsular extension (p < 0.001), and positive margins (p < 0.0001), with trends in increasing percentage of prostate glands with adverse pathological features over time. There was significant in-group differences in Gleason upgrading (p < 0.01), with decreasing pathology upgrading over time. There was significant in-group differences in pre-RP D’Amico risk stratification over time (p < 0.01). The percent of patients with pre-RP low-risk D’Amico pathology decreased from 42.9% in 2004 to 24.3% in 2009, increased to 50.9% between 2009 and 2011, then decreased again to 27.8% from 2011 to 2015. There were no significant in-group differences in age, race, or seminal vesicle invasion.

CONCLUSIONS: Over the last 10 years, we have increasingly targeted RP to patients with adverse pathology who have greater need for treatment while also reducing Gleason upgrading at RP. Our results indicate decreasing overtreatment and validate the effect that active surveillance emphasis has on changing the population undergoing RP.

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