**CELL CYCLE PROGRESSION-COMBINED RISK SCORE STRATIFIES PROSTATE CANCER RISK AND SIGNIFICANTLY MODIFIES TREATMENT DECISIONS IN PROSTATE CANCER**

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**BACKGROUND**

- The cell cycle progression combined risk (CCP-CR) test (Prolaris®, Myriad Genetic Laboratories, Inc.) has been validated in nine cohorts and provides information on the risk of prostate cancer-specific disease progression and disease specific mortality when combined with standard clinicopathologic parameters. 
- In this analysis, we evaluated how the CCP score modifies the AUA risk in results from our initial commercial testing.
- We also queried clinicians’ judgment regarding the clinical utility of the CCP-CR test in a prospective registry.

**RESULTS**

- Test ordered by 457 physicians.
- 2176/2219 (98.1%) samples yielded quality RNA.
- Normal distribution for the CCP score (-2.9 to 3.1).
- Based on the CCP score, 29.1% of men had a less aggressive cancer compared to the clinicopathologic prediction and 26.3% of patients had a more aggressive cancer.

**METHODS**

- Our current laboratory database was evaluated for patients whose biopsy was tested with the CCP-CR test andwhose clinicopathologic data was collected by the ordering physician.
  - Formalin fixed, prostate biopsy tissue from patients diagnosed with adenocarcinoma was analyzed.
- The CCP score was calculated by measuring the RNA expression of 31 cell cycle progression genes normalized to 15 housekeeping genes.
  - A relative classification of cancer aggressiveness was developed to interpret how the patient’s CCP score compared to that of patients within the same AUA risk category.
- In addition, clinicians ordering the CCP-CR test commercially were asked to complete a survey regarding their treatment recommendations before and after they received the CCP-CR test result.

**REFERENCES**


**CONCLUSIONS**

- The CCP-CR test is a novel assay that can improve risk stratification for men with prostate adenocarcinoma independent of the Gleason score and PSA level.
- Over 50% of men initially tested in the commercial assay were assigned to a different risk category than predicted by their clinicopathologic features alone.
- Based on the judgment of ordering physicians, the CCP-CR score appears to add meaningful new information to risk assessment for localized prostate cancer patients.
- Test results led to major changes in treatment decisions with a significant increase in conservative management options, including active surveillance or watchful waiting.

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