INTRODUCTION

In 1988, Metabolic Syndrome was first described by Reaven as a cluster of conditions that served as risk factors for cardiovascular disease.(1) Several working definitions of metabolic syndrome have developed which include the following features: 1) abdominal obesity, 2) hypertriglyceridemia, 3) low high-density lipoprotein (HDL) cholesterol, 4) high blood pressure and 5) high fasting glucose.

It has been estimated that metabolic syndrome is present in approximately 25% to 35% of adults in the United States over the age of 18 years. Certain racial and ethnic groups are predisposed to developing metabolic syndrome, defined as a cluster of features (any three of five features) and 26% of EA patients have been classified as having metabolic syndrome (any three of five features) and 26% of EA patients have been classified similarly.

Impact: If metabolic syndrome is an important prognostic indicator in this investigation, then prevention or control of its features may prevent a shared strategy for the prevention of adverse events among prostate cancer patients. The results of this study may enhance our understanding as to the causes of the racial disparity in outcomes post-prostate cancer diagnosis.

METHODS

• Eligible participants are prostate cancer cases diagnosed on or after January 1st, 2004, aged 75 years and younger at date of diagnosis.

• All cases are living, diagnosed and/or treated at KCI, Detroit Medical Center (DMC) and its associated clinics with no history of invasive cancer prior to their diagnosis of prostate cancer and self-identified as AA or EA.

• All participants complete a written, self-administered, comprehensive questionnaire at the time of their consent to participate in the study and have their height, weight, and waist circumference measured. Medical records are reviewed for validation of self-reported metabolic syndrome features as well as documentation of data related to their PCa diagnosis and treatment. Follow-up of PCa cases occurs every 6 months post-treatment through documentation of biochemical recurrence or the end of the study.

• Recruitment for this investigation is ongoing and has been largely successful. Over the past 16 months, we have enrolled a total of 317 men with a participation rate of 83%. Approximately 55% of patients enrolled were with a median age of 61 years. Approximately 33% of AA and 37% of EA patients have been classified as having metabolic syndrome (any three of five features) and 26% of EA patients have been classified similarly.

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• All participants complete a written, self-administered, comprehensive questionnaire at the time of their consent.

• Behavioral factors and medical history are assessed up to one year prior to diagnosis gathering age at onset and treatment for any reported medical conditions.

• Each participant has his height, weight, and hip circumference measured according to standardized protocol.

• Blood samples are drawn at the time of their next scheduled follow-up appointment corresponding with the physician.

• Serums and DNAs extracted from these samples are banked for use in studies investigating the role of genes and biomarkers related to metabolic syndrome and biologic pathways focused on inflammation and insulin resistance.

• Patients are followed for evidence of prostate cancer recurrence through June, 2012.

• The association between specific metabolic syndrome features and risk of aggressive (compared to nonaggressive prostate cancer) will be evaluated using a logistic regression modeling approach.

• Risk of recurrence associated with metabolic syndrome features will be evaluated using Cox proportional hazards regression analyses.

PRELIMINARY RESULTS

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<tr>
<th>Table 1. Prevalence of metabolic syndrome features among study participants</th>
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<tbody>
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<td>Feature</td>
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<td>Obesity</td>
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SUMMARY and IMPACT

Recruitment, medical record review, and patient follow-up for this investigation is ongoing. At the end of the study we anticipate recruitment of 500 patients. If metabolic syndrome is an important prognostic indicator, then prevention or control of its features may prevent a shared strategy for the prevention of adverse events among prostate cancer patients. The results of this study may enhance our understanding as to the causes of the racial disparity in outcomes post-prostate cancer diagnosis.

REFERENCES


FUNDING

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