

Control Number: 54

Abstract Category: Clinical Science in Cardio-Oncology

Title: ASSESSMENT OF CARDIOVASCULAR DISEASE RISK FACTOR CONTROL IN CANCER PATIENTS

ABSTRACT BODY

Background

Heart disease and cancer continue to be the two leading causes of death in the United States. Despite considerable advancements in the treatment of cancer, cardiovascular disease remains a significant cause of morbidity and mortality in these patients. While evolving cancer therapies may allow our patients to grow older, their cardiac risk factors cannot be overlooked. Cancer patients with concomitant cardiovascular disease have a lower long term survival rate compared to cancer patient without heart problems. In response to this, Cardio-Oncology has emerged as a multidisciplinary field aimed at providing quality cancer care while addressing patients' cardiovascular health. There have been recent updated guidelines for management of many cardiovascular disease risk factors.

Methods

A total of 258 cancer patients seen between December 2017 and June 2019 at USA Mitchell Cancer Institute were randomly selected from a pool of over 1,300 patients. These patients had a diagnosis of one or more malignancies as well as one or more established cardiac risk factors. Retrospective chart review was performed to gather data reflective of classic cardiac risk factors, including systolic (SBP) and diastolic (DBP) blood pressure, body mass index, LDL levels, and hemoglobin A1C. Numerical values were grouped, averaged, and compared using two-tailed student's t-test and ANOVA tests.

Results

Breast cancer was the most prevalent type of cancer, comprising 39% of patients, which is notable as this group is likely to receive known cardiotoxic chemotherapy. Data analysis also revealed that 64% of patients had a SBP >130mmHg and 38.3% of them had a DBP >80mmHg. The mean SBP in all patients was 137.4 mmHg, while the mean DBP was 77.8 mmHg. There were statistically significant differences ($p < 0.05$) in SBP, DBP, and pulse pressure (PP) between patients <65 years old (yo) and patients ≥ 65 yo. SBP and PP were found to be higher in patients ≥ 65 yo while DBP was found to be higher in patients <65 yo. Similar trends were seen when SBP, DBP, and PP were compared across three different age groups: <50, 50 to 70, and >70. SBP and PP were found to be the highest in patients >70 yo while DBP was found to be the highest in patients <50 yo. With regards to other risk factors, 32.2% of the total patients were considered obese (BMI >30), and 11.2% were considered morbidly obese (BMI >40). HLD was more common than diabetes among patients, 50.8% and 41.1% respectively. Adequacy of cholesterol and diabetes control could not be assessed due to paucity of available lab data in the EMR.

Conclusion

Our study suggests that despite excellent cancer therapeutics allowing our patients to grow older, we may be ignoring their cardiac risk factors with age, predisposing them to non-cancer complications which may be preventable. More robust investigation is needed into control of diabetes and dyslipidemia in this population. Findings of this study provide insight into an actionable area where cardiologists and primary physicians, working closely with oncologists, can help reduce CV mortality in cancer patients.

Clinical Implications

Cancer patients suffer multiple cardiovascular risk factors which should be pursued and addressed intensively to avoid long term complication in the era of increased cancer survivorship.