



Research Week 2020

Social Factors and Their Role in Pediatric Solid Tumor Outcomes

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Keywords

Pediatric Solid Tumors, Environmental Factors, Financial Insecurity, Housing Insecurity

Abstract

Introduction

Cancer is a leading cause of disease-related mortality in children, and malignant solid tumors account for approximately 40% of childhood cancers¹. Hepatoblastoma, Neuroblastoma, and Wilm's tumor are some of the most common surgically treated solid abdominal tumors in the pediatric population. There is existing literature that states that environmental factors contribute to the development of Wilm's in pediatric populations^{2, 3}. In preliminary chart review of these three diagnoses, treatment of Wilm's tumors, in particular, had a larger incidence of verbalized social, financial, and housing stress, demonstrating a need to investigate this discrepancy. This study will investigate the role of financial, housing, and social support needs and utilized resources in the perceived and measurable outcomes of patients of these three solid tumor populations.

Methods

Retrospective chart review and a prospective phone call/email survey will assess how variation from treatment protocol or delays in treatment of Hepatoblastoma, Neuroblastoma, and Wilm's Tumor were impacted by social stressors. IRB approval has been obtained. Variables will include location of residence, family structure, and financial and housing insecurity status both at the time of diagnosis and during treatment. It will be analyzed with completed retrospective review of tumor staging, pathology, tumor rupture, and relapse.

Preliminary Results

Unfavorable clinical outcomes have occurred across all three solid tumor types, including relapse and mortality, and are sometimes associated with tumor rupture and/or unfavorable biology. There is a large incidence of reported social stressors in Wilm's tumor patients, including financial, housing, and travel burden. Further investigation will be conducted to determine the statistical significance of these social stressors in relation to patient outcomes.

Conclusion

The goal is to better understand the often-overlooked factors that impact patient outcomes. The focus is on enhancing multidisciplinary interactions between clinicians and care teams, perhaps tailored to the specific type of solid tumor.