Colorectal Cancer after Solid Organ Transplantation: Is an Update to Screening Guidelines Warranted?

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Background

Organ transplantation (OT) occurs in a complex, co-morbid population with unique challenges that impact their participation in preventative healthcare. Current colorectal screening parameters include adjusted schedules for familial history of cancer and polyposis syndromes. However, there is no protocol for adjusting surveillance patterns for patients after OT. Our aim is to demonstrate the incidence of colorectal cancer after OT and whether their adherence to screening is altered after OT.

Methods

We conducted a retrospective, observational, single center study that included all patients with colon, rectal and anal cancer diagnoses following solid OT, during a 6-year time frame. Data was collected from retrospective chart review, including demographics, medical and surgical history.

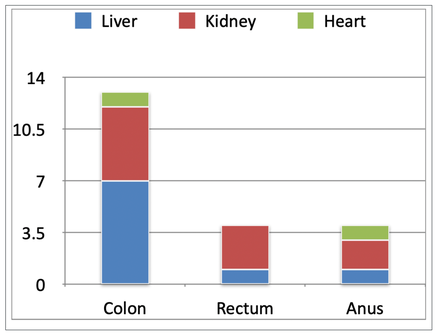
Conclusions

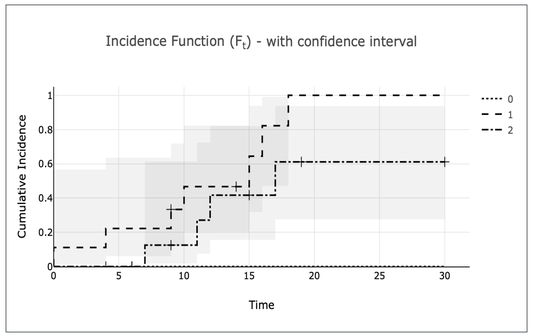
Transplant recipients are a complex and co-morbid population at risk of non-adherence to routine risk colonoscopy surveillance for colorectal and anal cancer. Owing to any number of factors, including their immune suppression and their chronic disease, they may face increased risk of malignancy. Given most cancers were diagnosed within a decade of transplant, colorectal cancer screening should be prioritized within this population. Additionally, the proportion of patients presenting with symptomatic or advanced disease within this population, should suggest need for adjusted colorectal cancer screening intervals.

Results

From 2017-2023, 28 transplant recipients were diagnosed with colon, rectal or anal cancer. Seven patients were excluded from study analysis due to unavailable endoscopy data. Of the remaining 21 patients, 67% were male (33% female) and 62% caucasian (19% black and 19% hispanic).

The average age of malignant diagnosis was 67 years (median of 58 years). The average time from transplant to malignancy was 11 years, with a median of 9 years. On review of colonoscopy surveillance, 48% were compliant with a minimum of q10 year colonoscopy screening after organ transplantation, and half of these patients were screened more aggressively (q2-5 years) based on personal history of IBD or polyps.





Risk factors outside of transplant immunosuppression included obesity and diabetes (52%), inflammatory bowel disease (14%), genetic disease (19%), and radiation exposure (9%). Transplant history included 2 hearts (9%), 10 kidneys (48%) and 9 livers (43%), with 29% of these patients reporting history of multiple organ transplants. Cancer history included 13 colon cancers (62%), 4 rectal cancers (19%) and 4 anal cancers (19%), with 52% presenting symptomatic and 52% diagnosed with locally advanced or metastatic disease.

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