Causes of death in a cohort of early stage colorectal cancer patients treated at a regional centre in Australia

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BACKGROUND

• Australia has one of the highest incidences of colorectal cancer in the world.

• The state of Victoria has amongst the best survival rates nationally and internationally.

• However, inequalities in CRC survival for patients living in rural and regional areas persist.

• In particular, there is an absolute difference of 10% in five year survival rates of patients diagnosed between 2005 – 2009 in Metropolitan Melbourne compared to the Grampians region in regional Victoria. ¹

AIM

• To explore potential contributing factors for increased mortality.

METHODS

• A cohort of patients with early stage colorectal cancer diagnosed from 2005 - 2009 at Ballarat Health Services, Victoria, who did not receive adjuvant chemotherapy, were identified via the Victorian Cancer Registry.

• Demographic, tumour and treatment data were extracted from medical records.

• Survival data was obtained from the Victorian Cancer Registry, with correlation with hospital records to identify cause of death.

RESULTS

• A total of 123 patients were included. The median age was 73 years.

• 21% of patients (n=26) were diagnosed after presenting as an emergency.

• Most tumours were T3 (47%) and 93% were node negative.

Socioeconomics

• Patients lived a median distance of 13km from the hospital, with 30% living alone.

• 5.7% were employed at diagnosis.

Comorbidities and Performance Status

• The median Charlson score at diagnosis was 2.

• The median ECOG performance status of 1.

• 69% of patients were either overweight (BMI 25.0–29.9) or obese (BMI >30).

Mortality and causes of death

• As of December 2017, 63 of the 123 patients had died.

• The median time from surgery to death was 56 months.

• Colorectal cancer was identified as the cause of death in 12 of 63 deaths – a minority of deaths

• The majority of deaths (51 out of 63) were not related to cancer, with heart failure (n=8), chronic obstructive pulmonary disease (n= 6), and stroke (n=6) as the most common causes.

Early Deaths

• 11 of the 63 deaths (17.5%) occurred within 12 months of surgery.

• The median Charlson score for these patients was 2 – similar to the overall cohort

• 45% were overweight or obese – less so than the whole cohort

• The median ECOG of 2 was poorer than the entire cohort.

• 7 of the 11 deaths were in patients who had presented as emergencies,

• However only 2 of these were directly attributable to cancer (perforation and sepsis).

• The others were hospital-acquired pneumonia (n=2), end stage airways disease (n=2), ischaemic heart disease (n=2).

CONCLUSIONS

• The majority of deaths in this cohort of early stage colorectal cancer were non-cancer related.

• The standard Charlson comorbidity index and the median ECOG performance status for the whole cohort were not particularly high.

• Demographic factors like a lack of social support from being unemployed and living alone, and a suboptimal weight, could be associated factors.

• Patients who presented as an emergency accounted for a majority of early deaths, however this was not directly related to malignancy in the majority.

• To further elucidate factors contributing to non-cancer mortality, data from a contemporaneous cohort of early stage patients from a Victorian metropolitan centre is being analysed and compared.

References