

Outcomes and Complications of Surgery for Symptomatic Spinal Metastases; A Comparison between Patients Aged ≥ 70 and <70

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Introduction Advances in oncological treatment have resulted in increased life expectancies for cancer patients. This combined with an aging population has led to a consistent increase in elderly patients presenting with spinal metastases. Physicians may be deterred from operating on these patients due to fears of poorer outcomes and increased complications because elderly patients have more comorbidities which puts them at a greater risk than other age groups. This concern about increased mortality and morbidity in the elderly can potentially lead to suboptimal surgical treatment in elderly cancer patients. In this study, we aim to compare the outcomes of surgical treatment of spinal metastases in patients aged ≥ 70 -yrs and patients aged <70 -yrs.

Materials and Methods This is a retrospective study of patients who underwent surgical treatment for spinal metastases between January 2005 to December 2021. These patients were divided into two groups age <70 years and ≥ 70 years. Outcomes studied included post-operative neurological status, ambulatory status, medical and surgical complications and the need for readmission after surgery.

Results 383 patients met the criteria for inclusion of which 79 (20.6%) were ≥ 70 -yrs. Age ≥ 70 -yrs patients had significantly poorer ECOG score 3-4 ($p=0.0017$), CCI ($p<0.001$). There was no significant difference in modified Tokuhashi score and prognostic subgroup between patients aged ≥ 70 -yrs and <70 -yrs. There was no significant difference in the location of tumour operated, type of surgery, surgical approach, number of levels instrumented and decompressed between both groups. There was no significant difference in post-operative neurology, ambulatory status, and survival between both groups. Patients ≥ 70 -yrs were more likely to have medical complications (53.2% vs 50.8%) ($p=0.528$) and require readmission within 1-month post discharge (33.3% vs 29.6%) ($p=0.800$), although both were not statistically significant.

Conclusion ≥ 70 -yrs patients have comparable improvement in neurological status, ambulatory status and survival compared to younger patients. However, there is a significant complication and readmission rate. Age should not be a contraindication to surgery in spinal metastases and patients should be treated on an individual basis in a multidisciplinary setting.