Survival Analysis of Dermatofibrosarcoma (DFSP) Following Surgical Intervention at the King Hussein Cancer Centre (KHCC): A Retrospective Study

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Introduction

Dermatofibrosarcoma (DFSP) is a rare cutaneous tumor with an elevated rate of diagnostic error (1). It has a favourable prognosis given its low metastatic potential, but it has a high proclivity for recurrence. Presently, the gold standard for diagnosis is pathological and immunohistochemical assessments. Surgical resection remains the primary treatment option. The objective of this study is to evaluate the overall survival and disease-free survival rate of DFSP following surgical intervention at KHCC.

Methodology

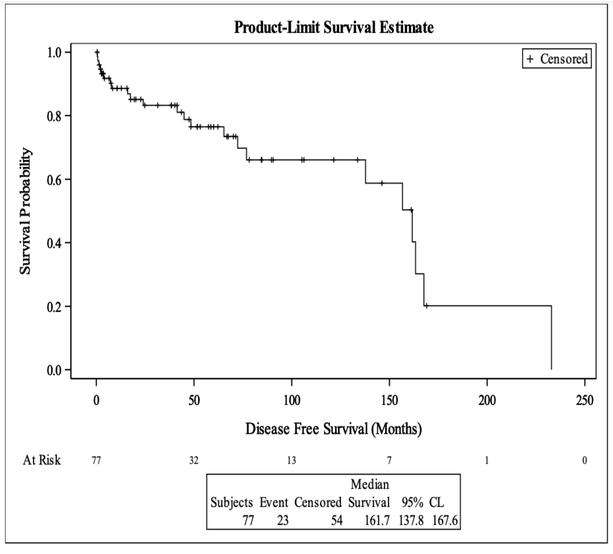
Data was retrospectively collected from the KHCC patient portal between 2007 and 2021, including male and female patients aged 10-74 at diagnosis. Patients with confirmed pathology DFSP, determined by diagnostic deep tissue skin biopsies were included. One patient initially diagnosed with DFSP but was later confirmed to have deep fibrous histiocytoma following excision was excluded, refining the cohort to 77 patients. Kaplan Meier Survival Analysis was conducted to analyse the outcomes.

Results

The site of DSFP varied amongst patients, and ranged from the trunk, head and neck, and limbs. Duration of complaint varied from 1 month to 20 years, with a mean 2.5 years, and a median of 3.5 years. 60 patients underwent wide local excision of the tumor as the initial surgical management, with deep excision margins ranging from 0.9mm to 8*9 mm, rendering the tumor completely excised. 22 patients underwent adjuvant radiotherapy. Among the 77 patients in the cohort, 23 experienced local recurrence, which accounts for 30% of the patient group, while none exhibited distant metastasis. Notably, only 13 patients encountered recurrence within the initial 3 years following diagnosis. This resulted in a 3-year disease-free survival rate of 83.2%, with a 95% confidence interval of [73.2, 91.3]. Eight patients in the study presented with concurrent oncological pathologies, including lymphoma, breast cancer, bowel cancer, and lung cancer. Remarkably, the 3-year overall survival rate for this patient group stood at 100%.

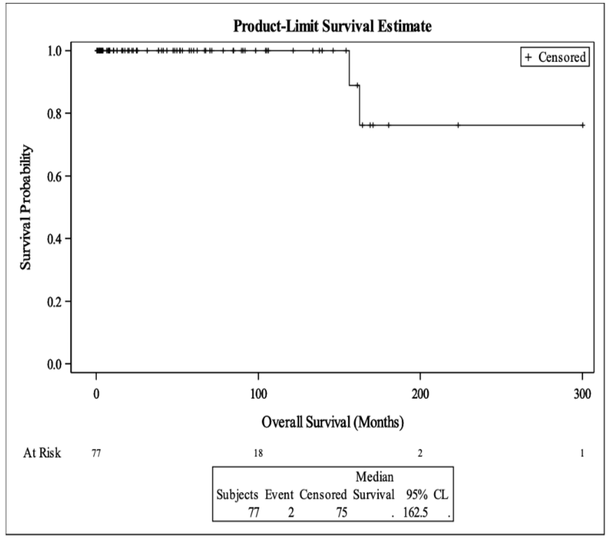
1. Lyu A, Wang Q. Dermatofibrosarcoma protuberans: A clinical analysis. Oncol Lett. 2018;16(2):1855-62.

Kaplan Meier Survival Curves



Obs	TIMELIST	Rate (95% CI)
1	3 years survival rate	83.2(73.2,91.3)

DFSP 3-year disease free survival rate at KHCC between 2007 and 2021: 83.2%



3 years overall survival rate	100%

DFSP 3-year overall survival rate at KHCC between 2007 and 2021: 100%

Conclusion

This study highlights the effectiveness of surgical resection and the potential utility of adjuvant therapies in managing DFSP. The absence of distant metastasis and limited early recurrences suggest a favourable prognosis, even though chemotherapy was not utilized at KHCC.

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