

Myxofibrosarcoma Characteristics and Clinical Outcomes at a Large Canadian Tertiary Cancer Referral Centre

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Abstract

Purpose/Objectives

Previously known as a myxoid variant of malignant fibrous histiocytoma (MFH), myxofibrosarcomas are characterized by the occurrence of a painless mass with high post treatment recurrence rates. We take a close look at patient demographics and disease characteristics of this soft tissue sarcoma subtype to highlight the incidence as well as outcomes over an extended period of time at our large teaching hospital.

Materials/Methods

A retrospective chart review comprising of myxofibrosarcoma patients over a 10 years span from 1/2005 to 1/2015 was undertaken with follow up data through to 2/2017 to guarantee at least 2 years of post-treatment data. Information was then gathered by corroborating Electronic Medical Records, paper charts and if needed, communication with peripheral facilities and family physicians' offices, especially for those patients who were initially deemed to have been lost to follow-up at our tertiary level cancer centre. The solitary inclusion criterion was histologic confirmation of the disease with exclusion criterion being age under 18 years. A comprehensive literature review was also undertaken to determine current developments for this histology. Overall survival was analyzed using the Kaplan-Meier methodology.

Results

Thirty nine patients meeting the required selection criteria were acknowledged from an initial pool of 968 entries involving all soft tissue tumours. Incidence was predominantly male (61.5%), with the most common presenting symptom being a painless mass (95%). Median pre-treatment hemoglobin following diagnosis was 128 g/L. Median age at time of diagnosis was 62 years with a median follow up of 44.6 months. The commonest occurrences were in the

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extremities and superficial trunk (82%). Median tumor size was 9.5 cm. In order of incidence, the commonest FNLCC (Federation Nationale des Centres de Lutte Contre le Cancer) Grades were Grade 2 at 41% and 20.5% for both Grade 1 and 3 diseases. Surgery, offered in 92% of cases, formed the primary modality of curative intent treatment (87%). Radiation therapy and chemotherapy were provided in 74% and 18% of cases respectively, primarily in an adjuvant setting for curative intent patients, with a median fractionation of 50 Gy in 25 fractions. Post-surgical margins were positive in 22% of patients with lymphovascular invasion identified in only 2 cases. Stage distribution by incidence was as follows: Stage I- 18%, Stage II- 49%, Stage III- 21% and Stage IV- 10%. Thirty six percent of patients had a recurrence with only 4 patients having a local component. Of the 11 patients who had a recurrence, 8 were stage II and 3 were stage III. Three and five year overall survival estimates were 70% and 67% respectively.

Conclusions

Treatment outcomes for myxofibrosarcoma remain comparable with current literature. More research remains required to identify strategies in enhancing both locoregional and systemic control.

