



GIST specific overall survival data of patients diagnosed in Scotland from 1995 to 1999 using the Armed Forces Institute of Pathology prognostic system.

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Aims: The most commonly used prognostic criteria over the last few years has been the NIH criteria. However, there have been limitations to the criteria specifically in the heterogeneity of tumors in the high risk category and overlap in overall survival between low and intermediate risk groups. Emphasis has changed to an alternative prognostic system devised by the Armed Forces Institute of Pathology (AFIP). This relates to the risk of disease progression in terms of the primary or metastatic disease. Its main difference is that it includes the addition of tumour site as a prognostic factor. Accurate prognostication of GIST is essential in regards to intensity of patient post-op surveillance and potentially in the use of adjuvant therapy with imatinib. Our population study aims to provide overall survival data in relation to AFIP criteria.

Methods: Patients with suspected GIST between 1995 to 1999 were included. C-kit positive, and C-kit negative but CD34 positive tumours, were included. GIST specific overall survival was estimated by the Kaplan-Meier method using Statistics Package for Social Sciences (SPSS Version 12.0). Patients dying of non-GIST causes were excluded from the analysis.

Results: Median follow up time was 11.7 years. We analysed our data, according to AFIP prognostic groups, in relation to GIST specific overall survival. Due to exclusion of GISTs from alternative sites and lack of data, 75 patients were analysed. Sixty percent were classified in the three low risk groups, 13% in the moderate risk group, and 26% in the high risk group. Due to the lack of events, only the high risk group achieved a median survival time (24.1 months 95%CI 0 – 73.7) The three low risk categories had similar mean survival times (no risk 114.2 mths 95%CI 89.1-139.4, very low risk 126.2 mths 95%CI 107.8 – 144.5, low risk 116.3 mths 95%CI 94.2 – 138.4) but the moderate risk group (mean 91.4 mths 95%CI 54.1 – 128.7) and high risk group (mean 56.5mths 95%CI 33.3 – 79.7) had lower mean survival times as predicted. Kaplan-Meier curves showed divergence of the moderate and high risk groups from the low risk groups ($p < 0.0001$).

Conclusions: In relation to the AFIP criteria this population study is the first to relate the prognostic criteria to GIST specific overall survival. It confirms a significant difference between prognostic groups which correlates as expected with the risk of progressive disease. However, as with the NIH criteria, there seems close overlap between the low and very low risk groups. This may be related to the small number of patients in this study but does raise the possibility of further refinements to the AFIP criteria.