

Retrospective analysis of symptom duration in soft tissue sarcoma: Does a delay in diagnosis affect outcome?

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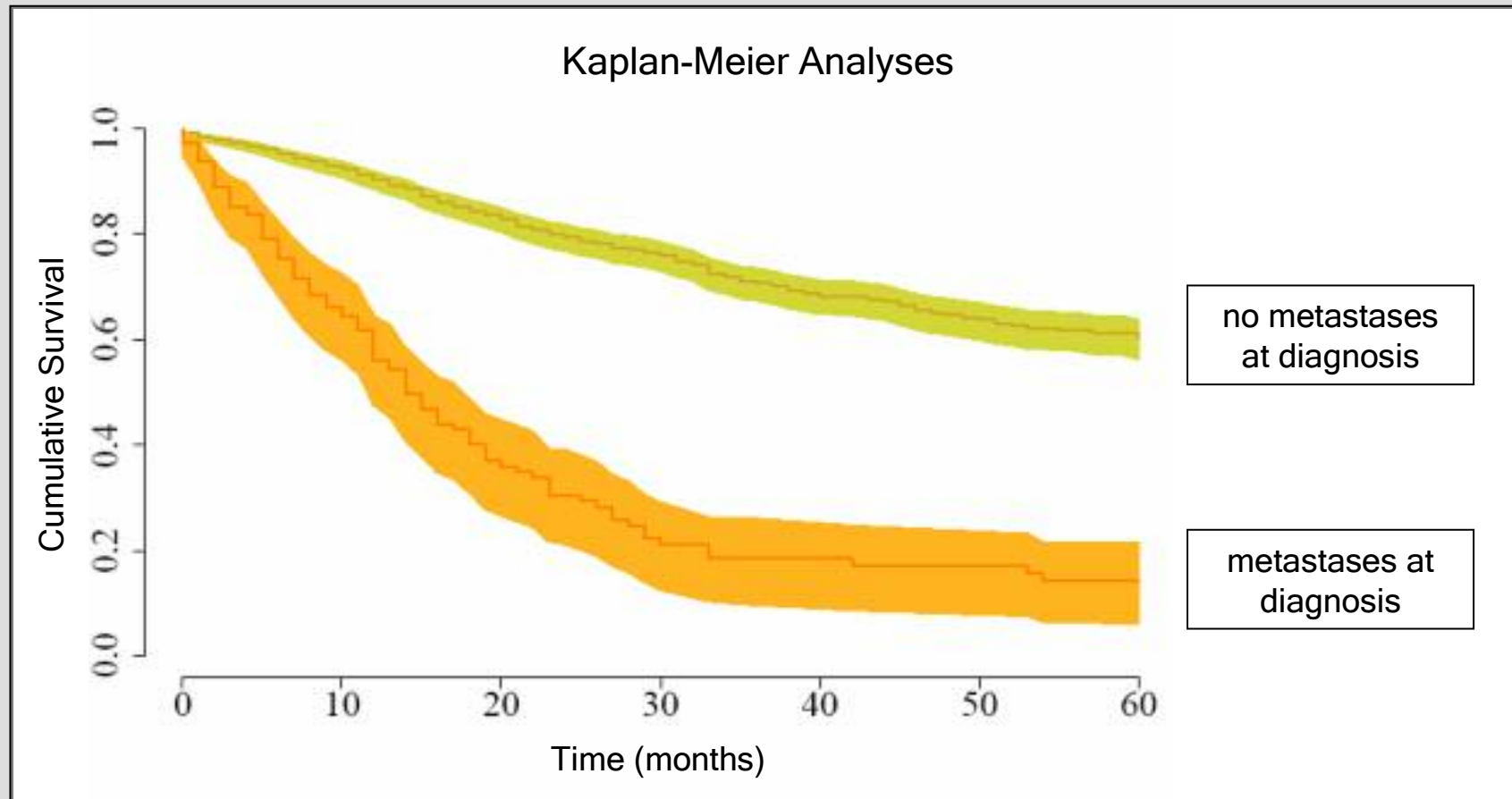
Study Design

- Retrospective analysis of patients treated with soft tissue sarcoma at our centre over a 25 year period.
- Symptom duration defined as time in weeks from first symptoms experienced by patient to date of diagnosis
- Those with local recurrence or history of another malignancy excluded.
- Statistical analyses performed using Statview

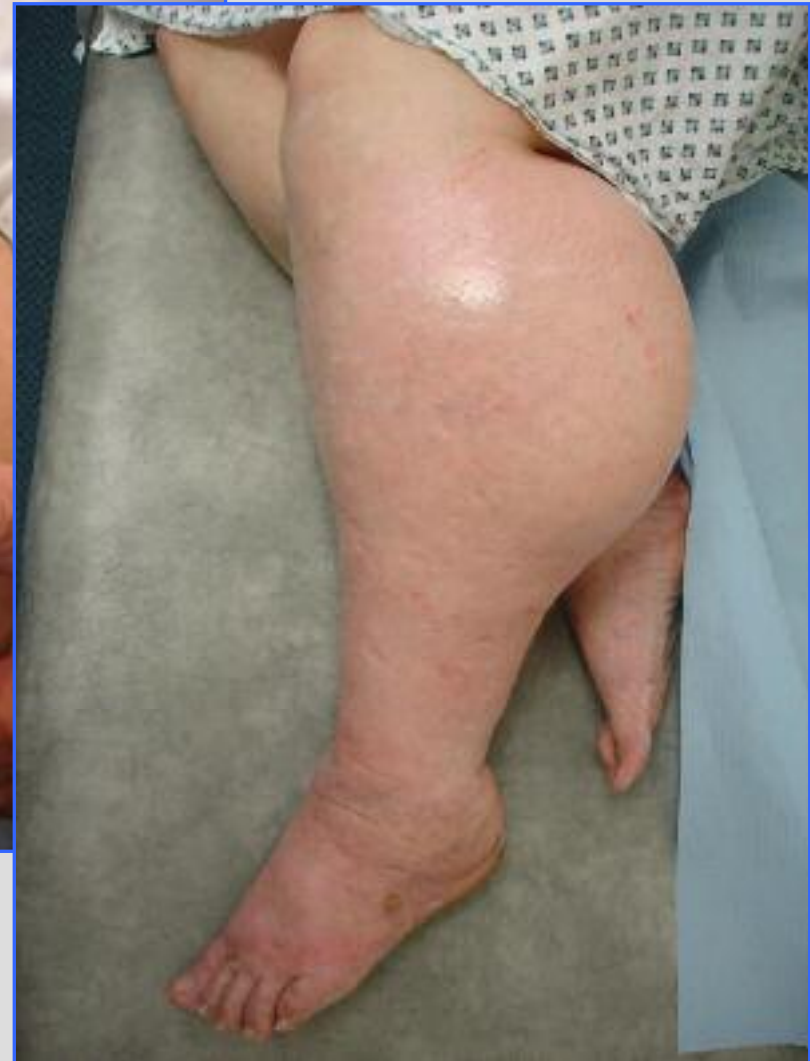
Population Demographics

- 1508 patients.
- 159 metastatic disease at diagnosis.

Population Demographics



Population Demographics



Tumour Characteristics

- Mean tumour diameter 10.6cm (range 0.3–96cm).
- High, intermediate and low grade accounted for 46%, 24% and 21% of study population
- Deep and subcutaneous tumours represented 74.1% and 22.9% of study population
- The percentage of high grade tumours in patients over the age of fifty was 56.3% compared to 42.7% below the age of fifty.

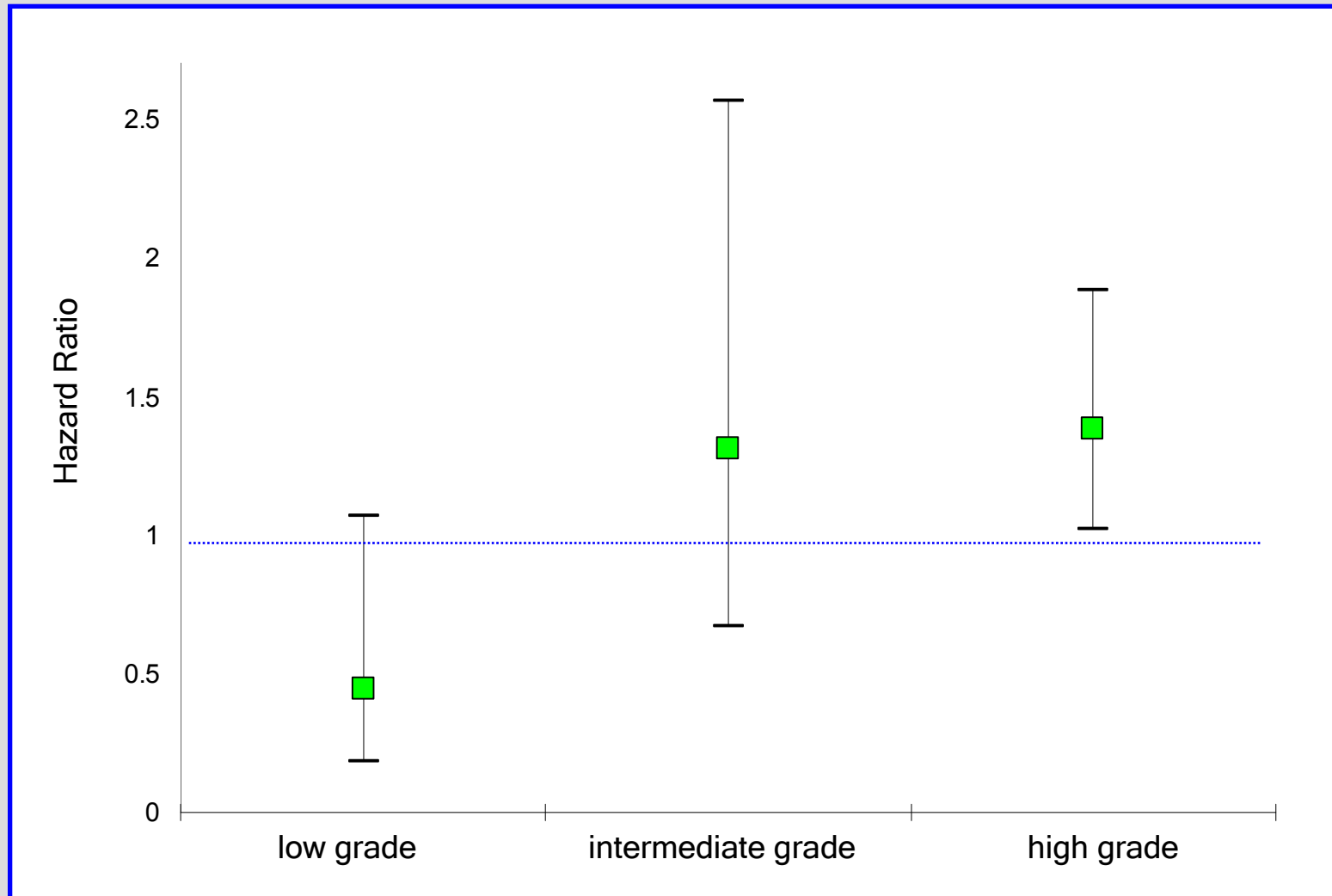
Results of unpaired t-test

		Mean symptom duration (weeks)	Mean difference		p-value
Sex	Male	76.7			0.1496
	Female	65.9	10.8		
Age	≤50	76.2			0.3810
	>50	69.5	6.6		
Depth	Subcutaneous	98.1			<0.0001
	Deep	62.6	35.4		
Grade	High	45.8	high, int	29.6	<0.0001
	Intermediate	75.4	high,low	61.4	<0.0001
	Low	107.2	int,low	31.7	0.0127
Size	<5cm	83.1	<5,5 to 20	15.9	0.1064
	5 to 20cm	67.2	5 to 20,>20	12.7	0.3920
	>20 cm	79.9	>20,<5	3.2	0.8511
Histology	Epithelioid/synovial	125.4			<0.0001
	All others	65.6	59.8		

Multi-variate Analyses

		Hazard Ratio	95% Confidence Interval
Symptom duration	Very long (>52wks)	1	
	Long (>26-52wks)	1.45	1.01 to 2.08
	Medium (>12-26wks)	1.64	1.16 to 2.30
	Short (0-12wks)	1.27	0.91 to 1.78
Gender	Male	1	
	Female	0.68	0.55 to 0.85
Age		1.02	1.01 to 1.03
Depth	Subcutaneous	1	
	Deep	1.57	1.59 to 2.14
Grade	Low	1	
	Intermediate	3.44	2.20 to 5.36
	High	5.08	3.39 to 7.60
Size		1.03	1.02 to 1.04

Box-plot to show hazard ratios and confidence intervals for symptom duration greater than 12 weeks.



Size/Symptom Duration Ratio

This ratio can be used to approximate the rate of tumour growth.

Subject to recall and inter/intra observer bias.

An important determinant of outcome in multivariate analyses

HR 1.088 (CI 1.044 to 1.133)

Discussion & Conclusions

- What does our study add to literature?
 - Confirms patients with v.long symptom duration tend to have low grade disease and do well
 - Confirms those presenting early tend to have high grade disease and have less favourable prognosis
 - Demonstrated significant survival benefit in reducing diagnostic delay in high grade disease
 - Propose the size/symptom duration ratio as an important prognosticator
 - Identified that patients with deep lesions present earlier than those with subcutaneous lesions