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Poster Abstracts

Refining the diagnostic criteria for soft tissue sarcomas

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Aim:
To establish whether existing criteria for diagnosing soft tissue sarcomas are accurate when applied to a large number of patients.

Method:
All patients referred to a tertiary musculoskeletal cancer centre with a soft tissue swelling over the past 10 years have had clinical data recorded prospectively on a computerised database. These records were reviewed to identify the significance of age, size of swelling, depth, pain and increase of size in respect of a benign or malignant diagnosis.

Results:
Data from 3018 patients was available of whom 1455 were found to have a malignant tumour (48%). Patients with malignant lumps tended to have a shorter history (73 vs 126 weeks, $p<0.0001$), be older (55 vs 46yrs, $p<0.0001$) and have larger tumours (9.8 vs 5.7cm, $p<0.0001$) than those with benign lumps. The sensitivity, specificity, PPV, NPV and accuracy are shown below:

Symptom	Sensitivity (%)	Specificity (%)	Accuracy (%)	Positive predictive value (%)	Negative predictive value (%)
Size >5cm	71.3	62.8	67.5	70.6	63.5
Pain	44.2	62.9	54.8	48.0	59.3
Increased size	81.4	55.8	67.8	61.7	77.5
Deep to fascia	77.9	29.9	53.6	51.9	58.4

If all 4 features were present there was an 83% probability that a lump was malignant. The most predictive combination of factors for malignancy was a lump >5cm increasing in size (PPV 78.5%), whilst the most predictive features of a benign lump were a subcutaneous lump not increasing in size (83.7% NPV for malignancy).

Conclusion:
This study has confirmed that the current criteria are adequate to act as a 'trigger' for referral under the two week weight. Further studies in a non-specialist centre are badly needed to validate these findings.