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The Cytology of Soft Tissue Tumours

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The Cytology of Soft Tissue Tumours

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The cytological diagnosis of soft tissue tumours, based on fine needle aspirates, has been debated and at times discouraged except in the diagnosis of lipoma. Soft tissue tumours are relatively rare in spite of the fact that more than 100 benign subtypes, over 50 variants of sarcoma and a number of ‘border-line’ entities have been described. Individual cytopathologists are thus not likely to encounter many of the less common variants of soft tissue tumours during their training and may only occasionally needle them in their later practice. It has been strongly recommended that the primary morphological diagnosis of malignant soft tissue tumours as well as other investigations and treatment should be performed at multidisciplinary centres. In practice, however, it is not possible to refer all patients with soft tissue tumours to a musculoskeletal tumour centre for primary work-up. Tumours are usually considered to be suspicious if they are large (>5 cm) or deep-seated (inter-or intramuscular). This implies that the management of the majority of soft tissue tumours is undertaken in general hospitals.

The use of special diagnostic methods has led to greater accuracy in histopathological diagnosis in this tumour group. The use of ancillary methods is also, no doubt, necessary in many cases when fine needle aspiration (FNA) and cytodagnosis is used in primary diagnosis, making surgical biopsy unnecessary. As has repeatedly been demonstrated in other tumour entities, the use of FNA instead of surgical biopsy or core needle biopsy offers a number of advantages when used in the primary diagnosis of soft tissue tumours.

The purpose of this book is to facilitate the cytological evaluation of FNA smears from soft tissue tumours and suggest cytological criteria for a histotype diagnosis. The aim is foremost to describe and illustrate the most common entities and those rare tumours where cytological features have been described in case-reports and in small series.

The diagnostic use of ancillary methods is also discussed and illustrated.

The selection of entities which will be presented, their diagnostic features and differential diagnostic considerations are mainly based on the experience with FNA in the primary diagnosis of soft tissue tumours in patients referred to the Musculoskeletal Tumour Centre, University Hospital, Lund, Sweden over a 25-year period. Cases from the soft tissue tumour registry of the Scandinavian Sarcoma Group (a multidisciplinary association with members from all Nordic countries) have also been used. The illustrations have been culled from cases in the files of the Department of Pathology and Cytology, Lund University Hospital, which now contains smears from more than 3,000 soft tissue tumours needled between 1972 and 2002.

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