Cytology

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Fine-needle aspiration cytology Fine-needle aspiration cytology (FNAC) is a widely available, simple and relatively safe diagnostic tool. It is used in the clinical setting of mass-forming lesions, often performed under ultrasound guidance. It can di ff erentiate between inflammatory conditions and neoplasms with a high sensitivity (96%) and specificity (98%). Systematic reviews have reported FNAC to have a high sensitivity (80%) and specificity (97%) in di ff erentiating benign from malignant lesions. The Milan system (Table 54.4) for reporting salivary gland cytopathology is an e ff ective tool to assess the adequacy of the cytopathology specimen and quantify the risk of malignancy . Core needle biopsy FNAC has a high specificity but a lower sensitivity in diagnos ing malignancies. Being operator dependent, there is a high variability in practice. In addition, in lymphoma or high-grade malignancies, ancillary studies such as flow cytometry and immunohistochemistry are required to confirm the diagnosis. In these settings, core needle biopsy has g reater diagnostic - - accuracy than FNAC. It provides more tissue for diagnosis and preserves the cellular architecture for further classification of malignancies. However, as it is a more invasive procedure, it is often reserved as a supplement to FNAC for problem solving. -

cytopathology. Diagnostic criteria Risk of Usual management malignancy I Non-diagnostic 25% Clinical and radiological correlation/repeat FNAC II Non-neoplastic 10% Clinical follow-up and radiological correlation III AUS 20% Repeat FNAC or surgery IV

Neoplasm IVA Benign <5% Conservative surgery or clinical follow-up a Conservative surgery IVB SUMP 35% a V Suspicious for 60% Surgery malignancy a (extent depends VI Malignant >90% Surgery on type and grade of malignancy) AUS, atypia of undetermined signi /f_i cance; FNAC, /f_i ne-needle aspira

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