SUMMARY AND CONCLUSION

Salivary gland tumours are a common clinical dilemma and imaging plays a useful role in establishing diagnosis, evaluating extent of local and distant involvement.

Optimal work-up is incomplete without the criticalradiological help.

For lesions in the parotid, submandibular and sublingual glands, ultrasound is an ideal tool for initial assessment. These are relatively superficial structures accessible by high resolution ultrasound, which provides excellent resolution and tissue characterization without a radiation hazard. Cervical node involvement can also be assessed. It is readily combined with fine needle aspiration cytology (FNAC) .

Color doppler stated that malignant tumors have higher grade of vascularity than benign ones, and also that the periphral basket pattern of vascularity was specific for pleomorphic adenoma ;on the other hand, hillar flow was in favor of malignancy. There was no definite relationship between the value of the resistive index and the confirmation of the nature of the swelling.

Still CT is more superior than US in assessment of the extension of the lesion, mainly deep lobe and parapharyngeal extension in parotid cases, also involvement of nearby structures, mainly bony structures is better evaluated by CT. Nither CT nor US could detected the course of facial nerve inside the parotid gland.

The analysis of enhancement patterns by using two-phase helical CT will be helpful in differential diagnosis of salivary glands

tumors.pleomorphic adenoma showing delayed enhancement while warthin tumor showing early strong enhancement with decrease enhancement in delayed phase, also delayed enhancement seen in malignant tumor, multinodular enhancement is might be highly suggestive of pleomorphic adenoma.

An MRI is important to evaluate the complete tumour extent, local invasion and perineural spread. For all tumours detected in the sublingual gland, an MRI should be performed as the risk of malignancy is high.

For lesions of the deep lobe of parotid gland and the minor salivary glands, MRI and CT are the modalities of choice.

MRI is superior in its soft tissue differentiation. It is particularly helpful in detecting deep tissue extension, marrow infiltration/edema, perineural spread and the parotid portion of facial nerve using high-resolution techniques. It also detects signal change and extra-capsular spread in regional lymph nodes and does not involve the use of ionizing radiation.

The role of nuclear medicine and PET scan, in imaging of parotid masses has not yet been established . Warthin’s tumour and oncocytoma are the only salivary gland tumours that accumulate Tc99m Pertechnetate. Sialography is used to delineate the salivary ductal system and has a limited role in assessment of tumour extent.