SUMMARY AND CONCLUSION

Some neck swellings are difficult to be diagnosed by the clinical examination which is dependant on personal skill. Clinical assessment followed by plain radiography are the preliminary step, yet the plain radiogrpahy has a limited role due to superimposition of various neck structures. Ultrasonography is the second modality used to differentiate cystic or solid neck swelling. Yet the adjacent structures to the lesion can not be illustrated accurately. Doppler ultrasonography is helpful in assessment the normal and pathological vascular neck lesions e.g. haemangioma.

CT is ideally suited of evaluation of the neck as it provides cross sectional display of symmetrical structures, superior density discrimination and the ability to distinguish bone, soft tissue, muscle, neck organs and fat. CT of the neck is indicated in a wide variety of neck diseases such as congenital masses, abscesses, trauma, lymphadenopathy, benign neoplastic and non-neoplastic masses as well as primary and recurrent neck cancers.

CT should be the procedure of choice in the radiographic evaluation of a laryngeal tumor, particularly in combination with direct laryngoscopy. CT was also sensitive in the diagnosis of benign neoplasms as regards its origin, cartilageneous component, distortion of laryngeal skeleton as well as the severity of airway obstruction. CT was sensitive in detecting cervical lymph node metastases from laryngeal carcinoma, recurrent tumor as well as postoperative and post radiation changes.

Although ultrasound and radionuclide imaging remain valuable in detection of thyroid nodules, yet CT offered great help in detection of small lesion and in demonstration of calcification, degree of airway compression, vascular displacement and retrosternal extension. It was valuable in staging thyroid carcinoma, detection of lymph node metastases, vascular invasion, and bone or cartilage destruction.

Intravenous contrast material is necessary to determine the pattern of enhancement and to identify vascular structures. In cases of cervical lymphadenopathy, the patterns of nodal enhancement and the appearance of the adjacent facial planes were helpful in determining the etiology of disease. Furthermore, the CT scan was able to identify clinically occult adenopathy and its relationship to adjacent vital structures. Finally, CT allowed accurate follow-up of patients after radiation therapy and/or chemotherapy.

CT was the radiologic procedure of choice in the evaluation of salivary gland masses. CT was more sensitive in detecting the presence or absence of a mass as well as its extent, aggressiveness and whether the mass is intrinsic or extrinsic to the salivary gland. It provides exquisite anatomical detail, from which the location of the facial nerve with respect to a parotid mass could be defined.

CT has proved to be very useful in the diagnosis and characterization of neck masses. Most important of all, it is now the imaging technique of choice in staging neck tumors because of its ability both to display the primary tumor in relation to surrounding organs and to detect non-palpable regional and distant lymphatic metastases.

CT has also other important implications for patient management. These include the detection of recurrence, monitoring response to treatment and defining treatment volumes for radiotherapy.

Finally when formulating a diagnostic approach to a patient with a neck mass, it is important to consider the contribution that a particular imaging technique makes towards goals of patients management, including detection, diagnosis, treatment and follow up of disease.

CT, MRI and to some extent ultrasound are considered essential tools in evaluating a neck mass depending on variables such as equipment availability, experience in interpretation, type of mass clinically suspected and clinical acceptance.