

PERSISTENT NECK LUMP IN AN ADULT – COULD IT BE HPV RELATED THROAT CANCER?



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Neck lumps are a common presentation in general practice. Lymphadenopathy following an upper respiratory tract infection such as tonsillitis is very common in children and young adults. It normally resolves within a few weeks. A persistent neck lump in an adult should alert the GP to the possibility of malignancy. Smoking and excessive alcohol consumption are well known risk factors for head and neck mucosal SCC.

Research over the past decade has discovered that Human Papilloma Virus (HPV) is a major causative agent for oropharyngeal (tonsil and tongue base) cancers. Epidemiological studies in western countries are showing a decreasing incidence in smoking related laryngeal SCC, but unfortunately there is a significant rise in the incidence of HPV related oropharyngeal cancer.

HPV related oropharyngeal cancer commonly presents with a painless metastatic node in the upper neck. Patients may have no associated upper aero-digestive tract symptoms and hence GP's need to remain vigilant when assessing a patient with an unexplained persistent neck lump, of more than a few weeks duration.

CASE STUDY

A 55 year old male non-smoker and social drinker presented with a painless 3cm mass in the right upper neck for 3 months duration. Over this time he had experienced some very mild intermittent throat discomfort associated with occasional pain in his right ear. An ultrasound revealed a well circumscribed mass in the right upper neck associated with slight thickening in his right

tonsil. FNAB revealed poorly differentiated SCC. Further immunohistochemical testing on the FNAB cytology specimen for p16 (a tumour suppressor gene which acts as a surrogate marker for HPV) was strongly positive. Subsequent CT (figure 1) and PET scan (Figure 2) allowed accurate staging of his metastatic tonsillar cancer, and he went on to have curative treatment and is alive and well 5 years later.

DISCUSSION

Whilst a wide variety of pathology can present with a neck lump, a persistent neck lump in an adult warrants comprehensive assessment and should be considered malignant until proven otherwise. A complete history and head and neck physical examination is essential. A neck soft tissue CT scan with contrast provides superior anatomical definition of any neck mass, while also imaging the upper aerodigestive tract and remaining neck tissues. Most malignant neck lumps are solid, however HPV related oropharyngeal cancer can present with a cystic neck mass which can mimic a benign branchial cyst.

FNAB is an important diagnostic tool for investigating any persistent neck lump and has a high accuracy rate for solid masses. Unfortunately FNAB becomes less reliable when evaluating cystic neck masses as the fluid within a malignant cystic lymph node often reveals degenerate benign looking squamous cells and hence can provide false reassurance. In this era of HPV oropharyngeal cancer GP's and Radiologists need to remain vigilant when evaluating a patient with a cystic neck mass.

HPV related oropharyngeal SCC tends to occur in younger adults who do not smoke or drink excessively. A painless upper neck mass is a common mode of presentation for HPV oropharyngeal SCC. Patients often have few throat symptoms because the tumour can be small and located deep within the tonsil or tongue base. Examination may reveal normal looking tonsils. Clinicians need to remain extra vigilant when assessing adults with persistent neck lumps, particularly those that are cystic on ultrasound and CT imaging. Early referral to a Head and Neck Surgeon is important to confirm the diagnosis and plan treatment.

Table 1. Assessment of neck lump

- Complete history – duration of neck lump, associated throat symptoms such as dysphagia, hoarseness, throat pain or discomfort, referred otalgia, night sweats.
- Check for risk factors – smoking and drinking history, previous head and neck malignancies, or a history of skin cancer.
- Complete head and neck physical examination.
- Suspicious neck lumps should be investigated with a CT scan and fine needle aspiration biopsy.
- Consider referral of all suspicious neck lumps to a Head and Neck Surgeon.

Table 2. Classification of lateral neck lumps

- Congenital/developmental
 - branchial cleft cyst
 - vascular malformation
 - lymphangioma
- Inflammatory
 - salivary gland inflammation
 - lymphadenopathy secondary to viral or bacterial infection
 - rarely TB or cat scratch disease
- Benign tumours
 - salivary gland tumours e.g. pleomorphic adenoma
 - neurovascular tumours e.g. schwannoma
 - connective tissue tumours e.g. lipoma, fibroma
- Malignant tumours
 - salivary gland malignancy e.g. mucoepidermoid carcinoma
- Malignant lymphadenopathy
 - metastatic SCC – oral cavity, oropharynx (tonsil and tongue base), larynx, hypopharynx, skin
 - malignant melanoma
 - malignant lymphoma
 - thyroid malignancy

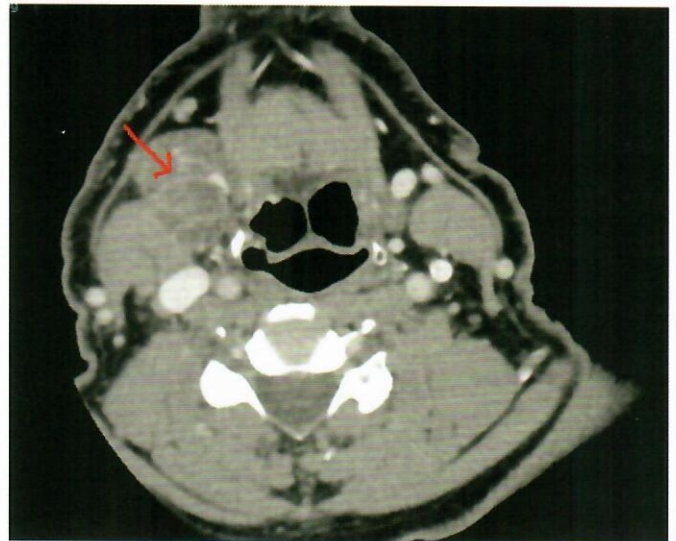


Figure 1 – CT scan demonstrating enlarged cervical lymph nodes.



Figure 2 – PET scan demonstrating avid FDG uptake in metastatic neck node and primary tonsil tumour



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