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Case Report

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Neck node in adult: a dignostic dilemma

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ABSTRACT

A tender neck mass in adults is a common disease and can be a diagnostic challenge because of its varied presentations, that can range from reactive lymphadenopathy to malignancy. We would like to describe a case report of young male with an enlarged tender neck swelling of short duration. The diagnostic imaging findings mimicked that of scrofula, which prompted a complete workup. Since the other investigations could not prompt to a specific diagnosis, an excision biopsy was performed. The histopathology report showed reactive lymphadenitis and the patient symptomatically improved with broad spectrum antibiotics. We would like to conclude that reactive lymphadenitis can mimic many features of other important differential diagnosis of neck masses. Hence a clinician should have a wide array of suspicion before coming to the definitive diagnosis and management.

Keywords: Neck Node, Reactive lymphadenitis

INTRODUCTION

A tender neck mass in adults is a common disease and can be a diagnostic challenge because of its wide array of presentations that can range from reactive lymphadenopathy to malignancy. Generally in young patients the common causes will be congenital conditions, infectious, inflammatory diseases and trauma; where in elder patients especially more than 40 yrs, neoplasm forms an important differential diagnosis.[1] We would like to describe a case report of young male with an enlarged tender neck swelling of short duration. The diagnostic imaging findings mimicked that of tuberculous cervical lymphadenopathy, which prompted a complete workup.

CASE REPORT

A 24 year old male Human Resource staff by occupation presented to ENT OPD with a painful swelling on the right side of neck for 3 weeks. To start with the swelling was small and it progressed gradually to the present size. There was a dull aching pain associated with the swelling. Patient also had fever since the last three days. Patient did not have any sore throat, odynophagia, shortness of breath, stridor, nasal obstruction and post nasal drip. There was no history of skin rash, axillary or inguinal lymphadenopathy. There was no history of loss of appetite, weight and evening rise in temperature. No history contact with tuberculosis. There was no history pharyngitis in recent past. There was no significant past medical history. There was no family history of haematological or head and neck malignancy.

There was no history of drug abuse, smoking and alcohol. There was no exposure to pets or other animals.

PHYSICAL EXAMINATION

Patients vitals upon arrival showed BP-120/80 mmHg, PR-90bpm and temperature of 99^0F, RR of 12 cycles/min. On general examination, patient was

conscious, cooperative and well oriented to time, place and person. On local examination, oral cavity and oropharynx appears to be normal. There was a non erythematous exquisitely tender mass on the right lateral aspect of neck over anterior border of sternocleidomastoid muscle of about 4×6 cm in size. The skin overlying the swelling was intact, not indurated, pinchable and not associated with any dilated veins and sinuses. The swelling was not fixed to underlying structures, firm in consistency. No other palpable nodes on the ipsilateral and contralateral sides of neck. No evidence of palpable axillary and inguinal nodes. Examination of ear, nose and throat appears to be clinically normal.

Figure 1: Showing right sided lymphadenopathy.

LABORATORY FINDINGS

Patients complete blood counts were within normal limits. Peripheral smear showed normocytic normochromic blood picture. ESR was elevated to about 30mm per hour. Sputum AFB was negative and Mantoux was non reactive. Serology for HIV and HbsAg was negative.

DIAGNOSTIC IMAGING

Patient's chest x-ray was unremarkable. USG neck showed non circumscribed enlarged predominantly hyper-echoic lesion (3.3×2.7×1.9 cm) on right side, no internal vascularity noted. Lesion shows absence of hilum. No evidence of matting of lymph nodes seen.

CECT of neck showed a large lymph node measuring (4.8×4×6 cm) with central necrosis in the level III in right side of neck. Multiple significantly enlarged cervical lymph nodes were present, of subcentimetric size on both right and left side. CECT features suggestive of B/L cervical lymphadenitis, largest lymph node present in the right side level III, likely to be of tubercular etiology.

FNAC of neck swelling was suggestive of reactive lymphadenitis with no evidence of malignancy.

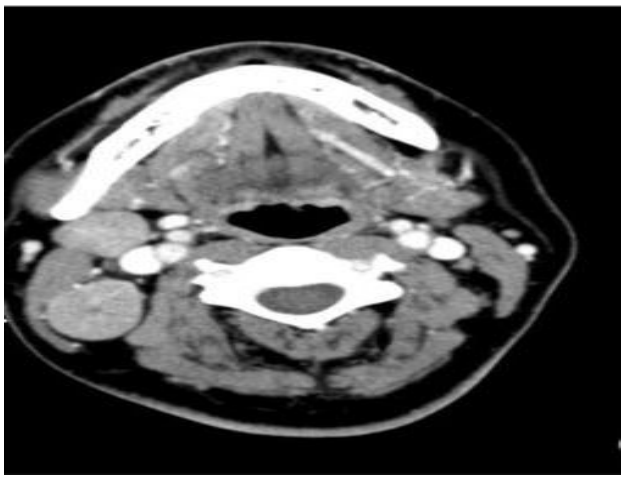

Figure 2: CECT showing multiple lymphadenopathy.

TREATMENT

Patient was treated with IV antibiotics, third generation cephalosporins and anti-inflammatory drugs for about 7 days. Inspite of this treatment, there was no reduction in the size of the swelling and no symptomatic improvement. Due to diagnostic uncertainty from the other investigations, an excision biopsy was performed.

Operative findings: On the table a transverse incision was placed over the swelling and deepened through layers, on dissection pus was present and aspirated. There was evidence of periadenitis. Lymph node was excised in toto. Pus that was aspirated was sent for culture and sensitivity, AFB and gram staining.

Post operative period was uneventful. Patient was discharged and out patient follow-up had been done on Day 7 and HPE report showed predominantly lymphocytes and scattered neutrophils. These inflammatory cell collections are extending into the muscle bundles; features suggestive of reactive lymphadenitis.

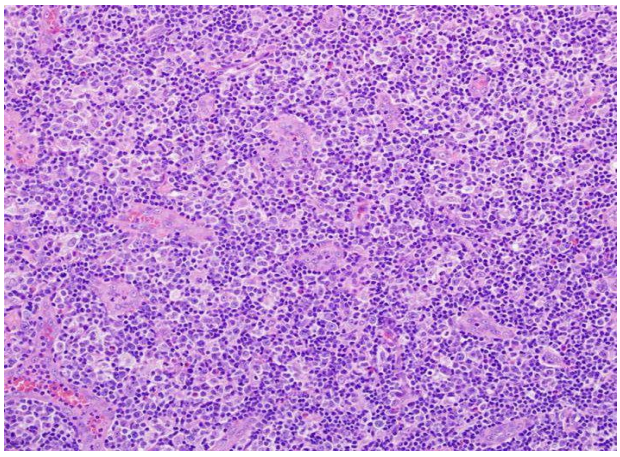

Figure 3: HPE showing reactive lymphadenitis.

Patient was followed up after 1 month and at the end of second month and was found to be asymptomatic with a healthy wound.

DISCUSSION

The presentation of neck mass can be a diagnostic challenge, requiring not only a comprehensive history and physical examination but also radiological imaging, multiple laboratory studies and often cervical node biopsy. The varied spectrum of diseases a clinician should keep in mind would be ranging from congenital conditions, inflammatory, neoplastic or manifestations of systemic diseases.

Table 1: KITTENS mnemonic for the differential diagnosis of the adult neck mass.[2]

	Congenital/developmental anomalies
K	Thyroglossal duct cyst
	Brachial cleft cyst
	Dermoid cyst
	Vascular malformation,i.e ‘’lymphovenous malformation’’ etc
I	Infectious/inflammatory
	Lymphadenitis/cervical adenopathy
	Viral (EBV)
	Bacterial(cat scratch disease, mycobacteria, atypical mycobacteria)
T	Trauma
	Hematoma
	Pseudoaneurysm
	Laryngocele
T	Toxic
	Thyroid toxicosis
E	Endocrine
	Thyroid neoplasms
	Parathyroid neoplasms
N	Neoplasms
	Salivary gland
	Parapharyngeal space-salivary tumors, glomus tumors,
	Neurogenic tumors
	Lipoma
	Lymphoma
S	Systemic diseases
	Sarcoidosis
	Sjogrens Syndrome
	Castleman disease

In general, enlarged neck nodes other than supra-clavicular/Level V nodes usually result from reactive lymphadenopathy.[3-5] In our case the largest neck node was in level III; as the blood counts were within normal limits and there was no generalised lymphadenopathy, the possibility of malignancy was ruled out. Since the largest palpable node is in level III, occult primary cancer remained on the differential diagnosis because the level II-III nodes drain the various hidden areas of pharynx.[6] In the present case FNAC and HPE suggested a benign pathology.

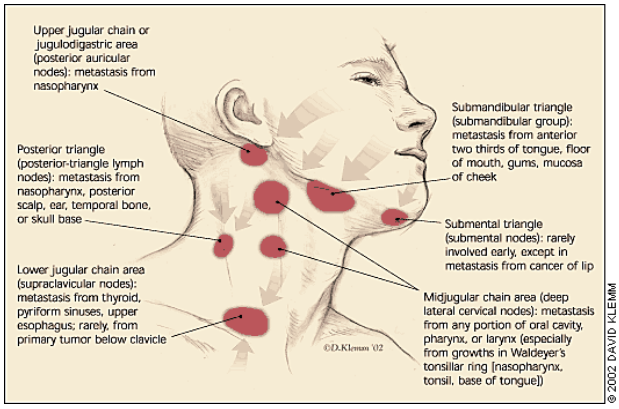

Figure 4: Levels of neck node with corresponding draining areas.[7,8]

Tuberculous cervical lymphadenitis is perhaps the most common etiology of a neck mass and presents in young patients as large painless lymph nodes.[9,10] Inspite being the most common etiology for enlarged cervical nodes, only one-third of patients have a documented history of TB.[11,12] The diagnostic features of tuberculous lymphadenitis on a CT neck shows central necrosis, nodal matting and minimal periadenitis.[13] Although in our case, CT Neck mimic features of tubercular lymphadenitis, the histopathology and culture & sensitivity both were negative for TB.

Bacterial infection causes reactive lymphadenopathy due to the stimulation of the immune system by regional infectious processes, such as upper respiratory infections, stomatitis or dental caries.[13,14] The other viral etiologies for cervical lymphadenopathy include HIV, Infectious mononucleosis and CMV. In the present scenario, culture reports were sterile and no particular organism could be attributed as a cause; though the patient improved with broad spectrum antibiotic therapy.

CONCLUSION

We would like to conclude that Reactive lymphadenitis can mimic many features of other important differential diagnosis of neck masses. Hence a clinician should have a wide array of suspicion before coming to the definitive diagnosis and management.

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