An audit of patients admitted with lump in the Neck in Surgical Department of Muhammad Medical College Hospital Mirpurkhas.

Muhammad AH[1*], Abbasi A[2], Awan MS[3], Muhammad SF[4], Muhammad SR[5]

Abstract:

Lump in the neck is a common surgical problem. We looked upon 180 patients admitted in Surgical Ward of Muhammad Medical College Hospital over a two years period. 123 were female and 57 male patients. 75 (41.7%) arose from thyroid (67 benign and 8 malignant). A third of lumps totaling 60 (33.3%) arose from lymph nodes. Of these, 35 were tuberculosis, 23 malignant and 2 had other causes. Unlike many studies done in developing countries, more swellings were found arising from thyroid than lymph nodes. Among lymphadenopathies, tuberculosis was commonest diagnosis.

Key Words: Head and Neck Swellings, Lymph Nodes, Goitre.

Introduction:

Neck swellings are common. Causes vary, ranging from simple treatable disease to a metastatic incurable carcinoma. The common causes may differ depending upon the different geographical location, gender and age of the patients. Knowledge of local causative factors is important to avoid diagnostic delay[1].

Commonly presenting head and neck masses are due to Lymph node, Thyroid and salivary gland enlargement (Das). In third world countries, infective causes are more common[2]. Frequency of tuberculosis varies from 20% to 60% in different studies. (Ahmed, Haig, Gupta, Lawrence). Malignant neoplasms were the second most common group (17.15%)[2]

Patients and Method:

We looked at the patients' files, operation theatre records and pathology reports of patients admitted with swelling of the neck between 01.09.2010 to 31.08.2012 and noted their age, gender and diagnosis. Ethical approval was taken from hospital's (MMCH) Research Ethics Committee with REC No. (02/010/REC/ 033).

Results:

180 patients were admitted with neck swelling during this 2 years period. Of these, 123 were female and 57 male patients.

Of these lumps in neck, 75 (41.7%) arose from thyroid (67 benign and 8 malignant). Among the benign swellings, 30 were benign solitary lumps (including 10 thyroglossal cysts), 27multinodular and 10 diffuse thyroid swellings.

A third of lumps totaling 60 (33.3%) arose from lymph nodes. Of these, 35 were tuberculous, 23 malignant and 2 had other causes.

Other causes included Sebaceous cyst (20), lipoma (15), thyroglossal cyst (10) and carcinoma of thyroid (08).

More details about gender distribution and average ages of patients are given in Table 1.

Table 1
Neck swelling

Disease	Total	Male	Female
Lymphadenopathy	60 (33.3%) Average Age 24	20 Average Age 21	40 Average Age 25
Goiter (Excluding (Ca & Thyroglossal cyst)	57 (31.7%) Average Age 43	11 Average Age 33	46 Average Age48
Ca Thyroid	08 (4.44%) Average Age 43	02 Average Age49	06 Average Age 41
Thyroglossal Cyst	10 (5.55%) Average Age 31	00 Average Age	10 Average Age 31
Lipoma	15 (8.33%) Average Age 29	10 Average Age 31	05 Average Age 25
Sebaceous cyst	20 (11%) Average Age 23	08 Average Age 23	12 Average Age 23
Others	10 (5.55%) Average Age 35	06 Average Age 37	04 Average Age 33
Total	180 (100%) Average Age 37	57 Average Age	123 Average Age

Total admission Number

Male	57
Female	123
Total	180

1. *Assistant Prof. of Pathology, Muhammad Medical College Hospital, Mirpurkhas, Sindh, Pakistan..*
2. *Associate Professor of Physiology, Muhammad Medical College Hospital, Mirpurkhas, Sindh, Pakistan.*
3. *Lecturer in Anatomy, Muhammad Medical College Hospital, Mirpurkhas, Sindh, Pakistan.*
4. *House Officer in Surgery, Muhammad Medical College Hospital, Mirpurkhas, Sindh, Pakistan.*
5. *Dean and Professor of Surgery, Muhammad Medical College Hospital, Mirpurkhas, Sindh, Pakistan.*

Aetiology of lymphadenopathy

TB	35
Malignancy	23
Others	02

Types of goiter

Solitary	30
Multinodular	27
Diffuse	10
Malignant	08

Discussion:

Neck masses are common clinical problems. Family physicians frequently encounter neck masses in adult patients (SCHWETSCHENAU). Since a significant number of them may be caused by neoplasms and in third world countries, large number are caused by infections (jindal), especially tuberculosis (Ahmed), early diagnosis and treatment are very important (jindal). The patient's age and the size and duration of the mass are the most significant predictors of neoplasia (Bhattacharya).

In the west, 75% of lateral neck masses in patients over 40 years are caused by malignant tumours, and the incidence of neoplastic cervical adenopathy continues to increase with age. Hence in the absence of overt signs of infection, a lateral neck mass is metastatic squamous cell carcinoma or lymphoma until proved otherwise. The primary tumour can be detected in 50% of patients by clinical examination alone and in a further 10-15% by panendoscopy of the upper aerodigestive tract (Gleeson). Although approximately one third of metastases from UPS (Unknown Primary Source) are found in lymph nodes [Abbruzzese], the incidence of neck nodes from UPS makes up only 1.7%-5.5% of all head and neck carcinomas in large series [Klop, Gurau, Lefebvre, Balm]. Over 90% of neck metastases comprises squamous cell carcinoma (SCC) [Schmalbach]In one large series of 8500 patients with head and neck neoplasms diagnosed over a 10 year period, 475 had presented with isolated lateral neck masses.2 Overall, 190 patients (40%) in this subset had metastatic squamous cell carcinoma from unknown primary sites, 188 (39.5%) had lymphoma, and the remainder had either benign disease (78 patients, 16.5%), sarcoma (10, 2%), or chemodectomas (9, 2%) (Lefebever). Fine needle aspiration biopsy is an accurate, sensitive, inexpensive, and rapid technique that can be performed in the clinic, whereas excisional and incisional biopsy of cervical metastases results in a 2-3 times increased incidence of local treatment failure when compared with fine needle aspiration cytology (Gleeson).

In a study done at Ahmedabad, India, out of 100 neck lumps, 51 arose from lymph nodes (55% tuberculous and 17% malignant), 20 from thyroid, 15 from salivary glands and 8 from other soft tissues. (Seetal)

Another study from Agroha, India including 350 FNAC from neck swelling showed that 53% arose from lymph nodes (36% tuberculous, 32% each malignant and reactive) 20% from thyroid and rest from variety of conditions (Jindal).

A similar study from MMC done between 01-01-2008 to 27-09-2010 showed that 39.6% arose from thyroid , of which 28.6% were malignant. 30.2 % of lumps in neck arose from lymph nodes (Tuberculous 75%, Malignant 12.5%), (see table 2).

Table 2.
Commonest neck swelling observed were

Diseases		Male	Female
Cervical lymphadenitis	n=16 (30.2%) av. age= 6.7 years range= 5-10 years	n=9 (56.25%) av. Age=7.4 years range=5-8 years	n=7 (43.75%) av. Age=6 years range=5-10 years
Goiter	n=14 (26.41%) av. Age=26.20 years range=20-30 years	n=6 (42.85%) av. Age=24.16 years range=20-30 years	n=8 (57.14%) av. Age=28.25 years range=22-28 years
Lipoma	n =9 (16.98%) av. Age=32.54 years range=25-40 years	n=7 (77.77%) av. Age=30.57 years range=25-40 years	n=2 (22.22%) av. Age=34.5years range=30-39 years
Sebaceous cyst	n =7 (13.20%) av. Age=28 year range=22-30 years	n=6 (85.71%) av. Age=26 years range=22-30 years	n=1 (14.28%) av. Age=30 years range=30 years
Carcinoma of thyroid	n =6 (11.32%) av. Age=35.4 years range=25-45 years	n=2 (33.33%) av. Age=37 years range=30-45 years	n=4 (66.66%) av. Age=33.8years range=25-45 years
Thyroglossal cyst	n =01 (1.9%) av. Age=10 years range=20 years	n=0 (0%) av. Age=0 years range=0 years	n=1 (100%) av. Age=20 years range=20 years

Conclusion:

Unlike Ahmedabad and Agroha, Goitre is more common in Mirpurkhas than cervical lymph nodes enlargement.

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