

Original Article

Metastatic neck node with unknown primary

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Abstract

Objective: To find out the clinical presentation of metastatic neck node with unknown primary.

Methods: A cross-sectional study done on the admitted patient from four tertiary level hospitals in Dhaka city from January 2010 to September 2010.

Results: Most of the cases were squamous cell carcinoma (68.75%). the next common was adenocarcinoma (15.62%) and undifferentiated carcinoma (12.5%). Melanoma was a rare condition (3.13%). The commonest age group was 6th decade (40.63%) which was followed by 5th decade (28%). None of the case was found bellow the age of 30 years. The male to female ratio was 2:1. Commonest metastatic group of lymph node was Level II (50%), followed by Level- III (22%) Level- IV (19%), Level- V (6%) and Level- I (3%). Staging of lymph nodes were N₂A (35%), N₁ (31%), N₂B (16%), N₃ (12.5%) and N₂C (6.25%) in decreasing order of frequency. About 72% cases are smoker.

Conclusion: Metastatic carcinoma with unknown primary tumour commonly present in elderly age group and majority of cases are squamous cell carcinoma.

Key word: Metastatic, Neck Node, Unknown Primary

Introduction

Presentation of metastatic neck lymphadenopathy without development of a primary lesion within a subsequent five year

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period is known as unknown primary carcinoma. The diagnosis can only be made after a thorough physical examination and radiographic evaluation have been performed on those region of the body that are most likely to harbour the unknown primary. Failure to identify an unknown primary has been attributed to either spontaneous regression of the primary tumour, autoimmune destruction or possibly accelerated tumour progression. The term carcinoma of unknown primary origin should be used if no evidence of primary tumour is found after adequate clinical examination, fiberoptic endoscopy and conventional radiological investigations. Now a days (FDG-PET) fluorine 18 labelled deoxyglucose positron Emission Tomography and PET-CT has introduced. A further diagnostic modality to be considered.

It accounts for only 2-3% of patients with head & neck malignancy.¹ As a result of recent improvement in imaging procedures its number is decreasing. Metastasis most commonly developed at nodal levels II & III with less frequent involvement of levels I, IV, V & VI.²

Diagnostic procedures of unknown primary carcinoma include a full Ear, Nose and Throat examination with nasoendoscopic examination of upper aero-digestive tract, computerized tomography scan and magnetic resonance. Examination under general anaesthesia should be performed which consists of laryngo-pharyngoscopy-oesophagoscopy and careful palpation of the tongue base. In the absence of obvious primary on endoscopy, tonsillectomy, tongue base biopsy and biopsies from post nasal space and pyriform fossa should be performed. The nasopharynx is particularly important incase of metastasis in level V. Tonsillectomy is recommended by many authors since upto 25% of primary tumours are detected in this site.^{3,4}

These conventional process of clinical examination, panendoscopy, CT and/or MRI followed by panendoscopy with biopsy have been shown to reveal the primary site in over 40% of patients initially diagnosed with neck node metastasis squamous cell carcinoma of unknown primary origin.⁵

In case of unknown primary tumours squamous cell carcinoma is the most common histotypes followed by adenocarcinoma, undifferentiated carcinoma and other malignancies such as lymphoma and melanoma. The prognosis for these patients is relatively good with 5 years survival rates exceeding 50% irrespective of management strategy.⁶ Patients with cervical metastasis other than SCC follow different treatment guideline and have different prognosis.

Methods

It was a cross sectional study. Patient admitted into 4 tertiary level hospitals in Department of Otolaryngology – Head & Neck Surgery, Bangabandhu Sheikh Mujib Medical University, Dhaka Medical College Hospital, Sir Salimullah Medical College & Mitford Hospital, Shahid Suhrawardy Medical College Hospital, Dhaka from January 2010 to September 2010. Total 32 patients were randomly selected. All consecutive cases of histologically positive metastatic neck node without any detectable primary. Each patient was examined thoroughly and appropriate investigation like FNAC, CT Scan, MRI, endoscopy was done. Data was recorded and analyzed in tables.

Results

Table-I

Histopathological diagnosis of metastatic neck node (n=32)

Type	Number of patients	Percentage
Squamous cell carcinoma	22	68.75
Adenocarcinoma	5	15.62
Undifferentiated carcinoma	4	12.5
Melanoma	1	3.125

Table- II

Age and sex of patients of metastatic neck node (n=32)

Age group (Years)	Number of cases	Percentage
20-30	Nil	Nil
31-40	5	15.625
41-50	9	28.125
51-60	13	40.625
61-70	3	9.375
71-80	2	6.25
Male	22	68.75
Female	10	31.25

Table- III*Symptoms of unknown primary cases (n=32)*

Clinical presentation	Number of cases	Percentage
Neck swelling	32	100
Weight loss	8	25
Pain in throat	6	18.75
Cough	4	12.25

Table- IV*Size of metastatic lymph nodes of unknown primary cases (n=32)*

Size of lymph nodes	Number of cases	Percentage
< 3 cm	10	31.25
3-6 cm	18	56.25
> 6 cm	4	12.5

Table- V*Level of involved lymph node in unknown primary cases (n=32)*

Lymph node level	Unilateral	Bilateral
Level-I	1 (3.125%)	0
Level-II	14 (43.75%)	2 (6.25%)
Level-III	7 (21.875%)	0
Level- IV	6 (18.75%)	0
Level- V	2 (6.25%)	0
Total	30 (93.75%)	2 (6.25%)

Table- VI*Staging of lymphnodes in unknown primary cases (n=32)*

N-Staging	Number of cases	Percentage
N ₁	10	31.25
N _{2A}	11	34.375
N _{2B}	5	15.625
N _{2C}	2	6.25
N ₃	4	12.5

Discussion

Patients with cervical lymph node metastases from unknown primary tumour present both diagnostic and therapeutic problems. Thirty two (32) patients with metastatic neck node in whom the primary tumours was not found despite extensive diagnostic procedures were treated in the Department of Otolaryngology-Head and Neck Surgery of four tertiary level hospital during January 2010 to September 2010. Cervical region is very rich in lymphatic supply containing about 300 lymph nodes which may get involved in the clinical course of head neck malignant disease.⁷ Cervical lymph node metastases from unknown primary tumour is relatively rare, represents only 5-10% of all head and neck cancers.⁸

Fine needle aspiration biopsy the main diagnostic procedure in the work up of carcinoma of unknown primary in the head & neck. It is used to obtain a cytological diagnosis of the presently neck mass. It allows the clinician to narrow the differential diagnosis and to focus on the diagnostic and therapeutic measures. However determination should include a biopsy of the tumour and a through history, complete physical examination, endoscopic examination, x-ray chest, CT scan from base of the skull up to pelvic region and examination under general anaesthesia and biopsy taken from probable primary site. Level of lymph node group was done after the Memorial Sloan Kettering Hospital, staging of lymph node group was done after AJC and UICC (1987). In carcinoma of unknown primary male is 2 times (68.25%) more common than female (31.25%). In another study it was 71% male and 29% female.²

In this study, majority (40.625%) of patients were 6th decade followed by 5th decade (28.15%) patients that was consistent with the metastatic carcinoma to the cervical nodes from an unknown head & Neck region.⁹

Unilateral neck node metastasis was 93.75% and bilateral 6.25%. There is high incidence of unilateral metastatic neck node. Another study shows unilateral 90% and bilateral 10%.^{10,11,12}

Among the 32 patients, all presented with cervical lymphadenopathy, 18.75% with pain in throat, 12.25% with cough and 25% with weight loss. In another study, it was observed that enlarged lymphnode was commonest (94%) followed by pain (9%) and weight loss (7%).²

In this study nodes were less than 3 cm in 31.25%, 3 to 6 cm in 56.25% and more than 6 cm in 12.5%. But study carried out by G.B Snow and his team showed enlarged lymph node <3 cm in 85% and > 3 cm in size in 15% only.¹³ This indicates more late presentation of the patients of this country

Level of lymphnodes most commonly involved Level – II (43.75%), Level – III (21.87%) whereas Level – IV, V & I are less frequent, which is similar with other study.²

In this study 31.25% case fell in stage N₁, (34.37%) stage N_{2a}, N_{2b} (15.62%), N_{2c} (6.25%), N₃ (12.5%). Another study this was 33.33% N₁, 13.34% N_{2a}, 18.33% N_{2b}, 8.4% N_{2c} and 26.66% patients in stage N₃.¹⁴

Among 32 patients, 68.75% with squamous cell carcinoma, 15.62% patients with adenocarcinoma, 12.5% patients with undifferentiated carcinoma and 3.12% patients with melanoma which is similar with other study.^{7,15}

Conclusion

Many carcinomas within the head or neck will sooner or later metastasize to lymph nodes and various factors control the natural history of this events. Once a neck node metastasis has occurred, further spread of the disease may not happen for many months or indeed years in conditions such as

papillary carcinoma of the thyroid. Metastatic carcinoma of unknown primary tumour commonly present in elderly age group. Males are affected two times than female. Majority of cases are squamous cell carcinoma.

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