FOLLICULAR CARCINOMA OF THYROID PRESENTING AS PARAPLEGIA

SALEEM KHAN, TASIR A. MUMTAZ, SHAH MUHAMMAD NOONARI*, JUNAID ASHRAF, ZAKIUDDIN G. OONWALA**

Department of Surgery, Hamdard College of Medicine & Dentistry & Hamdard University Hospital, Karachi
*Department of Surgery, K. V. Site Hospital, Karachi**
*Department of Neurosurgery, Dow University of Health Sciences & Civil Hospital, Karachi***

ABSTRACT

Follicular Carcinoma is not an uncommon malignancy of thyroid gland. It usually involves middle-aged persons. As Follicular Carcinoma spreads via blood stream skeletal metastasis are early to arise. Therefore to prevent metastasis its timely diagnosis and prompt treatment to the primary as well as metastasis, and long term follow up is required to prevent metastasis - if metastasis occur early treatment of metastasis prevent patients disability.

KEYWORDS: *Follicular Carcinoma, Radioactive Iodine 131 Uptake Scan, Arterial Embolization*

INTRODUCTION

Thyroid swellings are mostly benign. The commonest thyroid malignancies are papillary carcinoma and follicular carcinoma. Other thyroid tumours like medullary and anaplastic tumors are relatively uncommon.[1]

Follicular carcinoma of thyroid has a predilection for the fourth and fifth decade. In cancers terminology it carries a more favourable prognosis than most other cancers, but it is much more aggressive and dangerous than papillary carcinoma.[1] The five year survival is being 60% and 10 years survival is 50%.[1,2]

The heamatogenous dissimination to lungs and bones is the feature of the disease. The prognosis justifies more radical approach in the form of total thyroidectomy with preservation of parathyroid glands and removal of all palpable cervical lymph nodes. If total thyroidectomy is not done, it is impossible to perform total body scanning as radio iodine will preffentially be taken up in the remaining thyroid tissue rather than by metastases. Uptake in metastases is then treated by therapeutic dose of radio iodine. Subsequently thyroxin in given to suppress TSH.

Correspondence:
Prof. Saleem Khan, Professor of General Surgery,
Hamdard University Hospital, Karachi.
Phones: 0333-2233631.
E-mail: saleem_deshmukh@hotmail.com

CASE REPORT

We present a case of 48 years old male who presented with back ache radiating to left leg since last 5 months. Weakness of both limbs for the past 7 days and paraplegia for last 24 hours. On examination the patient was anaemic with decrease sensation of both lower limbs with loss of motor power in both lower limbs.

His haematological and biochemical investigations are within normal limits. His X-ray dorsal spine showed collapse of 11th Dorsal Vertebra. MRI Scan of the same patient conformed collapse of the 11th Dorsal vertebral body as shown in Fig.1.

Therefore the Neurosurgeon was involved who took bone biopsy and fixation of D10 to D12 was performed using Harrington rod as shown Fig.2. The patient had a smooth recovery. The histopathology of resected specimen was consistant with metastatic follicular carcinoma with thyrogloublin positive in the specimen.

Therefore thyroid I^{131} scan was performed showing cold area in the right lobe of the thyroid. Total thyroidectomy was performed and the specimen was consistent with follicular carcinoma of thyroid in Fig.3. So, the oncologist was involved in the treatment and the patient received therapeutic dose of radioactive iodine initially followed by radiotherapy to the dorsal spine.

Slowly the patient was rehabilitated and he was able to regain the full power in both limbs and resumed his normal day to day activity.

Fig. 1. MRI Scan of the same patient showing collapse of the Dorsal vertebral body

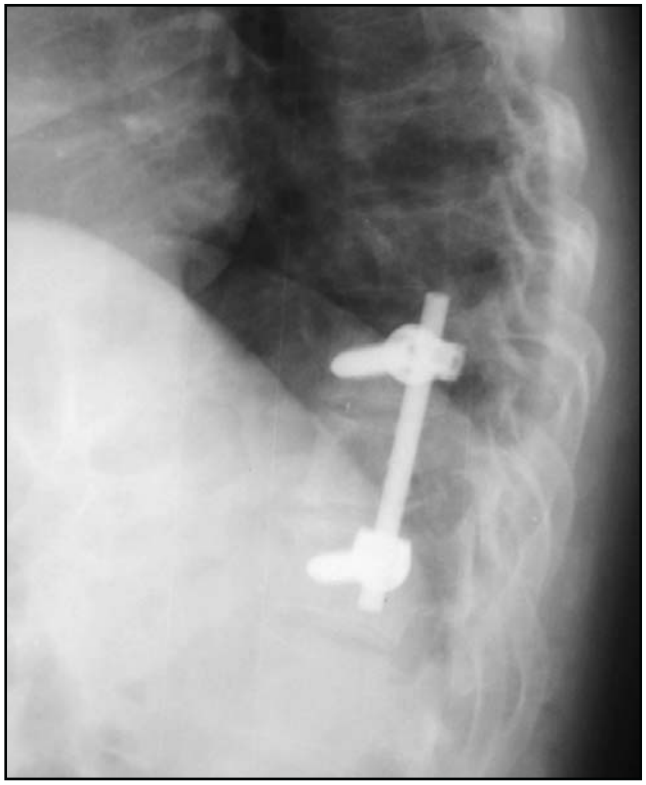

Fig.2. The Harrington rod with fixation of D10 to D12 along with bone biopsy

DISCUSSION

Thyroid cancer is uncommon with an estimated incidence in various parts of the world from 0.5 to 10 cases per 100,000 persons. It accounts for about 0.5 to 1.5 to all cancers in women.[2] The thyroid neoplasms are now classified in to follicular carcinoma, papillary carcinoma, anaplastic carcinoma and other neoplasm and variant forms.[3] Papillary carcinoma tends to metastaize via lymphatic pathway while follicular carcinoma via blood stream.[4]

Fig. 3 Operated specimen of total thyroidectomy

Encapsulated thyroid follicular carcinoma without histological evidence for carcinoma can metastaize[5] and in the past such adenoma was called metastasizing adenoma.[6,7] It has also been reported that thyroid adenomatous gland can also metastasize.[8] The common metastatic sites are lymph nodes lungs and bones but brain metastasis are rare.[9,10] Though brain metastasis is rare from follicular carcinoma Tadashi Terada from Japan reported brain metastasis from adenomatus thyroid gland.[11]

CONCLUSION

Follicular carcinoma spreads via blood steem rapidly, therefore to the prevent early metastasis to bone, brain, lungs, its timely diagnosis is required followed by prompt treatement to primary disease in the form of total thyroidectomy. Simultaneous metastatic workup is necessary to diagnose metastasis, and if metastasis occurs early treatment is required to prevent permanent disability.

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