



Evaluation of Thyroid Carcinoma in Southern Odisha: Protocol of Its Diagnosis and Management

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Abstract

This prospective study was conducted at teaching hospital of M.K.C.G. Medical College, Berhampur, Odisha on patients attending Surgical OPDs from different districts of South Odisha over a period of 2 yrs. 655 patients out of 38550 patients attending different surgical OPDs were found to have clinically enlarged thyroid or suspected metastatic node in neck. 32 patients out of them found to have primary thyroid cancer on final biopsy. The mean age of presentation was 43.2 yrs. Papillary thyroid carcinoma was by far the most common type of cancer found.

Keywords: *Thyroid carcinoma - Papillary, Follicular, Medullary, Anaplastic, Hurthle cell tumour, M.E.N.*

Introduction

Although thyroid carcinoma accounts for only 0.7 to 1% of all cancers in human beings, it is the commonest endocrine tumour.^{1,2,3} It shows a diversity of biological behaviour in incidence, tumour type and natural history. There has been many reports endorsing the fact that, the disease has recorded a 50% increase in incidence in past 30 years in white population and striking 2-3 fold increase in young adults of 25 to 35 years.⁴ There has also been a reported increase in incidence of thyroid cancer in India (Thompson, 1993).

The recent development in molecular biology, newer diagnostic techniques and prognostication of this disease have involved renewed interest in it.⁵

Material & Methods

All patients attending surgical OPDs of M.K.C.G. Medical College Hospital, Berhampur with neck swelling were examined and findings recorded.

All patients with clinical suspicion of thyroid swelling/lateral neck swelling suspected to be metastatic lymphnode were subjected to FNAC. All patients with report of primary thyroid carcinomas/follicular neoplasm (37) were selected for future study and treatment. X-ray of skull, spine, pelvis and long bones, USG of thyroid swelling and abdomen and pelvis were done in all cases. Suspected cases of metastasis were subjected to CT scan of head, neck and chest. Serum thyroglobulin, serum calcitonin level were employed during follow up.

Treatment given

- Hemithyroidectomy for follicular neoplasm and re-operation total thyroidectomy for follicular carcinoma (6 cases) confirmed after biopsy.
- Total thyroidectomy with central neck node dissection in 11 cases for papillary carcinoma.
- Subtotal thyroidectomy in 4 cases who were younger than 40 years and tumour limited to one lobe.
- Total thyroidectomy with modified neck dissection in 2 cases who showed metastatic node in posterior triangle of neck.
- Radiation and chemotherapy in 4 cases.
- Ablative doses of radioiodine (50 to 150mCi) to all cases of differentiated thyroid cancers and patients age above 40 yrs.
- All cases of differentiated thyroid cancer below 40 yrs. were given suppressive dose of thyroxine postoperatively.

Observation

Out of 38550 patients attending surgical OPDs of this hospital during March 2015 to February 2017. 655 patients (1.67%) had thyroid swelling, 4.9% of cases (32) of thyroid swelling came out to be primary thyroid carcinomas.

The male to female ratio came to be 1:3 and the commonest age of presentation was 25-55 yrs. (mean 42.34 yrs). The mean age for papillary carcinoma - 42.3 yrs. follicular carcinoma - 37.2 yrs, MTC - 55-5 yrs. and anaplastic carcinoma was 67 yrs.

Thyroid carcinoma constituted 0.9% of all cancer patients attending this hospital. The mean duration of neck swelling before the patients sought medical advice was 14.7 months. At the time of presentation 37.5% of patients and 12.5% of patients had lymphnode and distant metastasis respectively.

Swelling in front of the neck was the most common mode of presentation (93.7%). Discomfort in the neck during deglutition was second most common complaint. Pain referred to ear was seen in 3.4% and hoarseness of voice in 6.25%, dyspnoea in 21% and dysphagia in 15.6% of cases at presentation. One patient presented with fracture of right femur and another with bony swelling in the skull.

Relative frequency of different types of thyroid carcinoma and metastasis thereof

| | No. of cases | Relative % | % LN Inv. | % distant metastasis |
|----------------------|--------------|------------|-----------|----------------------|
| Papillary carcinoma | 20 | 62.5 | 55 | 5 |
| Follicular carcinoma | 8 | 25 | 12.5 | 37.5 |
| Medullary carcinoma | 2 | 6.25 | 50 | 50 |
| Anaplastic carcinoma | 2 | 6.25 | 0 | 100 |
| | | | AV=37.5% | AV = 22% |

Lymphnode metastasis in papillary carcinoma was seen in 55% of cases and that in follicular carcinoma and medullary carcinoma were 12.5% and 50% respectively. There was increased incidence of lymphnode involvement in younger patients.

Majority of malignant lesions presented with multinodular swelling (50%) while 34% presented as solitary nodule + 16% with diffuse thyroid enlargement. Follicular carcinoma showed high frequency of distant metastasis (37.5%) compared to 5% in papillary carcinoma.

FNAC was found to be one of the simplest and reasonably specific method for pre-operative diagnosis (specificity 96%).⁶USG was helpful in differentiating solid from cystic swellings and in identifying clinically non-palpable nodules.^{7,8} In fact many cases of clinically solitary nodule proved to be multinodular goitre.

Serum thyroglobulin in differentiated carcinoma and serum calcitonin in MTC proved to be useful in post-operative follow up.⁹Haemorrhage as a complication was not seen in this series. Recurrent laryngeal nerve palsy (unilateral) was seen in

3.4% and transient hypo parathyroidism seen in 6.8% of cases.

There were two deaths (both were cases of anaplastic carcinomas) during mean follow up period of 1.3 yr. But no cases of local recurrence or distant metastasis was detected in other 30 cases during this time.

Conclusion

Thyroid carcinoma did not show a higher incidence in this area compared to Indian figures of incidence. However a large proportion of cases come to hospital after lymphnode metastasis and many with distant metastasis. So health education of common men in rural areas are badly necessary to make them aware of iodized salt, goitrogens, gravity of neck swelling etc. FNAC being a simple investigation should be made available at least at sub-divisional hospitals so that early diagnosis and better management of these diseases is possible.

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