

Follicular Thyroid Carcinoma in a Developing Country: A Retrospective Study of 10 Years

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Abstract : Introduction: The most common endocrine tumor is thyroid cancer. Follicular Thyroid Carcinoma (FTC) accounts for 5%-10% of all thyroid cancers. Patients with FTC frequently present with more advanced stage diseases and a higher occurrence of distant metastases because of the propensity of vascular invasion. FTC is mainly treated with surgery, while radioactive iodine therapy is the main adjuvant therapy as per ATA guidelines. In many developing countries, surgical facilities and radioactive iodine are in short supply; therefore, understanding follicular thyroid cancer trends may help developing countries plan and use resources more effectively. Methodology: It was a retrospective observational study of FTC patients of age 18 years and above conducted at Aga Khan University Hospital, Karachi, from 1st January 2010 to 31st December 2019. Results: There were 404 patients with thyroid carcinoma, out of which forty (10.1%) were FTC. 50% of the patients were in the 41-60 years age group, and the female to male ratio was 1.5: 1. Twenty-four patients (60%) presented with complain of neck swelling followed by metastasis (20%) and compressive symptoms (20%). The most common site of metastasis was bone (87.5%), followed by lung (12.5%). The pre-operative thyroglobulin level was done in six out of eight metastatic patients (75%) in which it was elevated. This emphasizes the importance of checking thyroglobulin level in unusual presentation (bone pain, fractures) of a patient having neck swelling also to help in establishing the primary source of tumor. There was no complete documentation of ultrasound features of the thyroid gland in all the patients, which is an important investigation done in the initial evaluation of thyroid nodule. On FNAC, 50% (20 patients) had Bethesda category III-IV nodules, while 10% (4 patients) had Bethesda category II. In sixteen patients, FNAC was not done as they presented with compressive symptoms or metastasis. Fifty percent had a total thyroidectomy and 50% had subtotal followed by completion thyroidectomy, plus ten patients had lymph node dissection, out of which seven had histopathological lymph node involvement. On histopathology, twenty-three patients (57.5%) had minimally invasive, while seventeen (42.5%) had widely invasive follicular thyroid carcinoma. The capsular invasion was present in thirty-three patients (82.5%); one patient had no capsular invasion, but there was a vascular invasion. Six patients' histopathology had no record of capsular invasion. In contrast, the lymphovascular invasion was present in twenty-six patients (65%). In this study, 65 % of the patients had clinical stage 1 disease, while 25% had stage 2 and 10% had clinical stage 4. Seventeen patients (42.5%) had received RAI 30-100 mCi, while ten patients (25%) received more than 100 mCi. Conclusion: FTC demographic and clinicopathological presentation are the same in Pakistan as compared to other countries. Surgery followed by RAI is the mainstay of treatment. Thus understanding the trend of FTC and proper planning and utilization of the resources will help the developing countries in effectively treating the FTC.

Keywords : thyroid carcinoma, follicular thyroid carcinoma, clinicopathological features, developing countries

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