

## Larger tumor size predicts nodal involvement in patients with follicular thyroid carcinoma

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### ABSTRACT

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**Aims and background.** Lymph node metastases are rare in patients with follicular thyroid carcinoma, with an average incidence of 5.5% of all cases reported in the literature. In the present study we focused on the search for risk factors predictive of lymph node involvement in patients with follicular thyroid carcinoma to plan the most appropriate management and follow-up.

**Methods and study design.** We carried out a cross-sectional study among patients with follicular thyroid carcinoma and lymph node metastasis at diagnosis and patients without lymph node involvement. From January 1998 to April 2008, 930 patients underwent thyroidectomy in our surgical department for a variety of thyroid disorders, 420 (45.2%) of them for a differentiated thyroid carcinoma. The medical records of 55 patients with histological diagnosis of follicular thyroid carcinoma were analyzed.

**Results.** Four patients (7.3%) had lymph node metastasis from follicular thyroid carcinoma at presentation in both the lateral and central neck compartments. Mean tumor size was significantly greater for follicular thyroid carcinomas with nodal metastasis ( $5.1 \pm 1.4$  cm) than for those without nodal involvement ( $3.0 \pm 1.2$  cm,  $P < 0.010$ ). Among factors supposed to influence the presence of nodal metastasis at diagnosis (age, gender, tumor size, multifocality, tumor poorly differentiated, tumor widely invasive, vascular invasion, thyroid capsular invasion, and extra thyroid invasion), tumor size larger than 4.0 cm was the only factor retained in the multivariate statistical model.

**Conclusions.** Lymph node dissection must be planned only in the case of large follicular thyroid carcinomas. Since follicular carcinoma is usually diagnosed postoperatively, more attention should be paid to nodal involvement in the tumor re-staging during follow-up of those patients with tumors larger than 4.0 cm in diameter.

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**Key words:** follicular carcinoma, lymph node, metastasis, thyroid, treatment.

**Acknowledgments:** The study was supported by a grant from the University of Cagliari, Italy. Part of the study was presented at the 11th AFCE Congress (Association Francophone de Chirurgie Endocrinienne), Rome, Italy, June 2009

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Received September 7, 2009;  
accepted February 2, 2011.