EDITORIAL

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Clinical implications of follicular and Hurthle cell carcinoma in an iodine-sufficient area

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The clinical importance of follicular thyroid carcinoma (FTC) and Hurthle cell carcinoma (HCC) is underestimated because of their relatively low frequency in Korea, which is an iodine-sufficient area [1,2]. In addition, the limited clinical experience and the small number of available investigational studies have made it problematic to form appropriate recommendations regarding management plans, such as the optimal surgical intervention and follow-up strategies, based on thorough clinical evidence regarding the prognostic factors and natural history of these diseases.

In this multicenter study, the authors performed analyses assessing the clinicopathological features and long-term outcomes of FTC and HCC patients over 6 years [3]. They compared the initial tumor aggressiveness and disease-free survival of FTC and HCC, and analyzed the prognostic factors for each histological subtype. Together with the currently available clinical evidence, this study might provide useful information and novel insights into Korean patients with FTC and HCC.

FTC does not show the obvious nuclear changes that are characteristic of papillary thyroid cancer (PTC) [4]. The architectural distortion and oncocytic characteristics observed in FTC are also found in benign Hurthle cell neoplasms [5]. Therefore, the preoperative differential diagnosis of FTC and HCC from benign adenoma using ultrasonography features and fine needle aspiration (FNA) biopsy is often challenging. These histopathological characteristics of FTC and HCC were clearly visible in the results of FNA analyses in this multicenter study. Of the FTC and HCC subjects in this study, 45% and 33% showed a nonmalignant cytopathology, respectively. This suggests the possible necessity for novel diagnostic markers to clearly discriminate between FTC and HCC preoperatively.

In general, patients with HCC have a poorer prognosis than those with FTC [6]. Consistent with previous reports, this multicenter study also showed that patients with HCC were older and had more lymphovascular invasion than those with FTC. However, no prognostic markers to predict the initial clinicopathological features or disease-free survival for HCC were identified. The authors analyzed the combined data of 563 patients from four different major hospitals; most patients were diagnosed with FTC, and only 80 were diagnosed with HCC. Unfortunately, this discrepancy in the number of study subjects between the two groups might limit the validity of any comparisons of tumor behavior

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between FTC and HCC. In addition, there were no differences in the relapse rate between the minimally and widely invasive subtypes within each tumor category. This favorable prognosis might be due to the recent paradigm shift toward early diagnosis and treatment, as well as the more intensive adjuvants (such as radioiodine therapy) for invasive cases.

Nevertheless, the authors have validated significant risk factors, such as primary tumor size, the presence of cervical lymph node metastasis, and old age, which are related to the recurrence and metastasis of FTC and HCC. These observations suggest that the significant prognostic factors for classical PTC could be applied to FTC and HCC, even in Korea, where these tumors are relatively rare. The poor prognosis of HCC compared with FTC needs to be validated using additional prospective studies.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

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