

## The Value of Frozen Section for Detecting Extracapsular Spread in Papillary Thyroid Carcinomas

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**Objective** : In papillary thyroid carcinomas (PTCs), extracapsular spread (ECS) is seems to be one of the indications of total thyroidectomy. Preoperative radiologic findings may be helpful for detecting ECS. Many patients, however, undergo completion thyroidectomy according to the results of postoperative permanent section (PS), especially ECS. We investigated the value of frozen section (FS) for detecting ECS.

**Methods** : Medical records of 81 patients with PTC who underwent thyroid surgery and between June 2005 and June 2007 were reviewed. 19 patients were males and 62 were females. Median age was 52 years (range, 17–87). We com-

pared the ECS results of FS to PS.

**Results** : In 47 patients with ECS negative results on FS, only 18 patients (38.3%) were ECS negative on permanent section. In 34 patients with ECS positive results on FS, all patients had capsular invasion of cancer in final PS (sensitivity : 54% ; specificity : 100%, positive predictive value : 100%, negative predictive value : 38.3%).

**Conclusions** : Positive result of FS for ECS should be a reliable indicator to determine the extent of thyroid surgery. FS for detecting ECS is thought to be a helpful method to decrease the rate of completion thyroidectomy.