

갑상선암 수술의 최근 경향

Recent Trends in the Surgical Treatment of Thyroid Cancer

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Abstract

Thyroid cancer is a malignant disorder with a wide spectrum of disease ranging from indolent papillary microcarcinoma to fatal anaplastic carcinoma. The most common type is papillary carcinoma followed by follicular carcinoma. Most surgeons agree that total thyroidectomy followed by radioactive iodine therapy and TSH suppression is needed in the majority of patients with well - differentiated thyroid carcinoma. In some patients with papillary microcarcinoma, a less aggressive approach may be advised (lobectomy or isthmusectomy) because of its favorable long - term prognosis. The central compartment node dissection is routinely performed in thyroid cancer whether or not clinically involved, but the lateral neck node dissection is done only in patients with clinically positive. Medullary carcinoma is far less common, but has a worse prognosis. This type of cancer requires total thyroidectomy plus central and lateral neck node dissection. Anaplastic carcinoma is the least common and the most aggressive thyroid cancer. In most cases the cancer spreads very early to vital neck structures and metastasizes extensively to cervical lymph nodes and distant organs. Even with aggressive therapy, almost all patients are associated with a fatal outcome within 6 months after diagnosis. For localized thyroid lymphoma, external - beam radiotherapy has been the standard practice, and for advanced tumor, the radiotherapy preceded by chemotherapy has been recommended. For locoregional recurrence, complete resection should be attempted in all patients and high - dose radioactive iodine or external - beam radiotherapy should be added to improve the survival rates.

Keywords : **Thyroid cancer; Extent of thyroidectomy; Neck node dissection**

가
(differentiated thyroid carcinoma)
(anaplastic thyroid carcinoma)
(poorly differentiated carcinoma)
(thyroid follicular cell)
(papillary carcinoma),
(follicular carcinoma)
(parafollicular C - cell)
(medullary carcinoma)
가
80~90%, 5% 가 ,

(primary thyroid lymphoma), (squamous cell carcinoma), (metastatic carcinoma) .
 WHO 1cm
 microcarcinoma intrathyroid extrathyroid carcinoma ,
 tall cell, insular, clear cell, columnar, diffuse sclerosing carcinoma
 가 .
 가 .
 (prospective randomized trial) 가 .

system(age, histologic grade of tumor, extrathyroidal invasion and distant metastasis, tumor size), MACIS scoring system(metastasis, age, completion of resection, extrathyroidal invasion, tumor size), Lahey clinic AMES system(age, metastasis, extrathyroidal invasion, primary tumor size), SAG system(sex, age, histologic grade) .
 TNM staging system(primary tumor size, nodal status, distant metastasis) DeGroot classification(class I ; intrathyroidal, class II ; cervical node metastasis, class III ; extrathyroidal extension, class IV ; distant metastasis) 4
 AMES, MACIS, TNM

가 ,
 가 ,
 가 ,
 가 .
 (Hurthle cell carcinoma)

(, 가)
 가 1~2% ,
 (, 가)

(aneuploidy), (thyroid - stimulating hormone, TSH) c - AMP ,
 , Mayo clinic AGES

(aneuploidy), (thyroid - stimulating hormone, TSH) c - AMP ,
 (epidermal growth factor, EGF)

가, N - ras, gsp, c - myc mRNA AMES score
 가, RET/PTC rearrangement mutation
 , p53, cyclin D1 가 . (American
 Thyroid Association)
 (American Association of Clinical Endocrinologists)
 , 가 . (Society of Surgical
 Oncology)
 1. (Extent of Thyroidectomy)
 (multifocality), (bilaterality)
 가
 (frozen section)
 (follicular thyroglobulin
 neoplasm) (가
).
 85%
 가
 (thyroid lobectomy)
 5~10%
 (subtotal thyroidectomy) 50%
 5g
 (near - total thyroidectomy) 1% dediffe-
 1~3g rentation
 1.5cm
 가
 (total thyroidectomy)
 가
 47가

2.

가

10% (total laryngectomy) (tracheal resection) (shaving - off procedure) (partial laryngectomy) 가

가 (segmental resection and end - to - end anastomosis) 가 (prophylactic lymph node dissection) 가 (gastric pull - up, colonic interposition) (free jeejunal graft) (strap muscle) 가

가 (functional neck node dissection) 가 (anterior superior mediastinal nodes) 6% 가 가 가 가 ansa hypoglossal nerve

3.

4.

가 가 33~50% 가

RET muta-
tion 가 . RET muta-
5~6 가 phoma Hodgkin's disease non - Hodgkin's lym-
가 ,
(dedifferentiation) 가 ,
6 가 가
(debulking) 가 (Minimal Access or Endoscopic Thyroid Surgery)
(hyperfrac-
tionated radiotherapy) ,
가 가 2 가
mutation 가 p53 (cancer cell contamination and seeding)
(cell line) 가 ,
가 가 가
acid) 1cm
NIS (sodium iodide symporter gene)
(minimally
invasive open thyroid surgery) 2.5~3.5cm 가

가 가 가

가 가 가

가



가

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TSH
가

가 , 1cm

가

가

가 RET

mutation

가

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