RECENT MANAGEMENT OF PAPILLARY THYROID CARCINOMA

Essay

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LIST OF ABBREVIATIONS

ABBA	Axillo bilateral breast approach
BABA	Bilateral axillo breast approach
CLN	Central lymph node
DTC	Differentiated thyroid carcinoma
DxWBS	Diagnostic whole body scan
EBRT	External beam radiotherapy
EMG	Electromyography
ET	Endoscopic thyroidectomy
FDA	Food and Drug Administration
FNA	Fine needle aspiration
FNC	Fine needle capillary sample
GAN	Great auricular nerve
GI	Gastrointistinal
IONM	Intraoperative nerve monitoring
IPC	Incidental papillary carcinoma
ITA	Inferior thyroid artery
LCND	Lateral compartment node dissection

LN	Lymph node
MINET	Minimally invasive non endoscopic thyroidectomy
MITS	Minimally invasive thyroid surgery
MIVAT	Minimally invasive video assisted thyroidectomy
MTV	Middle thyroid vein
N.I.M	Nerve intra-operative monitoring system
PND	Prophylactic neck dissection
PTC	Papillary thyroid carcinoma
PTH	Parathyroid hormone
PVC	Poly vinyl chlorine
RAI	Radioactive iodine
RAIT	Radioactive iodine therapy
RLN	Recurrent laryngeal nerve
RxWBS	Therapeutic whole body scan
SCM	Sternocliedomastoid muscle
SET	Scarless endoscopic thyroidectomy
SLN	Superior laryngeal nerve
SLN	Sentinel lymph node
STA	Superior thyroid artery
TET	Total endoscopic thyroidectomy
TG	Thyroglobulin

TH	Thyroid hormone
TOVANS	Trans-oral video assisted neck surgery
TSH	Thyroid stimulating hormone
US	Ultrasound

التطورات الأخيرة في علاج سرطان الغدة الدرقية الحليمي

رسالة
توطئة للحصول على درجة الماجستير
فى الجراحة العامة

مقدمة من
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INTRODUCTION

In 2014, an estimated 62,980 individuals, predominately women, will be diagnosed with thyroid carcinoma. From 2006 to 2010, the incidence of thyroid cancer increased at an annual rate of 5.4% in men and 6.5% in women ***(Siegel et al., 2014)***.

Papillary thyroid cancer is the most common endocrine malignancy and accounts for the majority of cancers of the thyroid gland. The incidence of papillary thyroid cancer is rapidly increasing ***(Howlader et al., 2010)***.

Although increasing detection has been proposed as a possible factor, some studies reject this hypothesis, reporting increase in the incidence of larger tumors ***(Morris and Myssiorek, 2010)***.

The incidence of thyroid cancer is increasing globally, mostly due to papillary thyroid carcinoma. The bulk of the increase is lower stage cancers and or incidental micropapillary thyroid cancers found when surgery is performed for thyroid diseases other than cancer ***(Hoang et al., 2012)***.

Papillary carcinoma is a well-differentiated malignant tumor developed from the thyroid follicular cells, which shows a series of characteristic nuclear changes and even the growth pattern is frequently papillary, it is not required for the diagnosis ***(Nikiforov et al., 2009)*.**

The most frequent presentation of papillary thyroid cancer is a palpable thyroid nodule, cervical lymphadenopathy, or incidental detection on imaging. Locally advanced disease can present with hoarseness or voice alteration. Common risks factors include history of radiation exposure during childhood (the most important risk factor), thyroid cancer in a first-degree relative, family history of a thyroid cancer syndrome (such as Werner syndrome, Cowden syndrome, Carney complex, or familial polyposis) and female sex (2.5:1). Thyroid nodules in the context of an autoimmune thyroiditis may have a higher risk of malignancy ***(Fiore et al., 2011)***.

The majority of patients under 45 years of age who have differentiated thyroid cancer confined to the thyroid with lymph-node involvement have an excellent prognosis. The presence of distant metastases to the lungs at the time of initial diagnosis is not common and is reported to be between 3% and 15% ***(Edge et al., 2010)***.

Lymph node metastasis in the lateral compartment (N1b), massive extrathyroidal disease (T4) and distant metastasis (M1) are independent factors that have been correlated with poor prognosis in these patients ***(Ito et al., 2007)***.

Thyroid cancer is primarily managed with surgery, but there are cases in which surgery fails or is insufficient. The prognosis for patients with thyroid cancer is strongly influenced

by the extent of morphologic progression. In the approximately 80% of cases that develop from the follicular cell and differentiate as papillary or follicular carcinoma, the prognosis is typically excellent. In the 10% to 15% of patients who present with a more aggressive histologic variant, such as tall cell or insular carcinoma, the prognosis is poor **(American Cancer Society, 2014)**.

EBRT (external beam radiotherapy) is used to improve local control and prevent relapse, especially in patients with gross extrathyroidal extension, or local failure despite adequate surgery and appropriate RAI (radioactive iodine) **(Brierley and Sherman, 2012)**.