The Routine Use of Post-Operative Drains in Thyroid Surgery: An Outdated Concept

Introduction

The prevalence of thyroid swellings (solitary) varies between 4.2% and 51.3%, depending on age, sex and the presence of iodine deficiency. Indications for surgical intervention vary but include patients in whom there is a suspicion of malignancy; those who exhibit local pressure, voice change or dysphagia. The routine use of drain(s) to prevent the development of a haematoma or seroma remains an outdated practice. The presence of fluid within a drain does not necessarily indicate the presence of a haematoma or seroma. This is because the absence of drains post-thyroidectomy increases the associated complication rate.

Methods

A retrospective analysis of all patients undergoing thyroid surgery from 1998 - 2007 was performed. All patients were reviewed and biographical data, pre-operative medications, thyroid status, indication for surgical intervention, treatment and outcome were recorded.

Results

In the study period, a total of 104 thyroid operations were performed. There were 87 (83.7%) females and 17 (16.3%) males. Their age ranged between 14 to 81 years with a mean age of 44.7 years. Indications for surgery included refractory hyperthyroidism in 39 (37.5%), Hashimoto's disease in 22 (21.2%) a solitary nodule in 21 (20.1%) and carcinoma in 22 (21.2%). A partial thyroidectomy (lobectomy) was undertaken in 63 (60.6%) patients and a total thyroidectomy in 27 (25.9%) and a sub-total thyroidectomy in 14 (13.5%) patients. An associated lymph node dissection was performed in 5 (4.8%) patients. Pre-operative Lugol's iodine was utilized in 8 (7.6%) patients. Suction drains were not utilized in any patient within the series.

The development of a cervical haematoma, which necessitates re-exploration, occurs in approximately 1 - 1.5% of patients undergoing thyroid surgery. In recent years, there has been a number of arguments against the uncomplicated thyroid surgery drain(s). This is because the absence of drains post-thyroidectomy increases the associated complication rate.

Discussion

The insertion of a drain following uncomplicated surgery for thyroid disease remains based on tradition and the associated peace of mind that it imparts to the operating surgeon. There is limited evidence in the literature to support their routine use. A drain is inserted immediately preoperatively as a prophylactic measure early to prevent haemorrhage or seroma formation. The insertion of a drain in the absence of drains post-thyroidectomy increases the associated complication rate. The presence of fluid within a drain does not necessarily indicate the presence of a haematoma or seroma.

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Conclusions

The majority of patients with a thyroid lobectomy being discharged on the second post-operative day and total and subtotal thyroidectomy patients between 14 to 81 years with a mean age of 44.7 years. Indications for surgery included refractory hyperthyroidism in 39 (37.5%), Hashimoto's disease in 22 (21.2%) a solitary nodule in 21 (20.1%) and carcinoma in 22 (21.2%). A partial thyroidectomy (lobectomy) was undertaken in 63 (60.6%) patients and a total thyroidectomy in 27 (25.9%) and a sub-total thyroidectomy in 14 (13.5%) patients. An associated lymph node dissection was performed in 5 (4.8%) patients. Pre-operative Lugol's iodine was utilized in 8 (7.6%) patients. Suction drains were not utilized in any patient within the series.

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