Lateral Supraclavicular Incision in Unilateral Thyroid Papillary Carcinoma Surgery: A Promising Approach

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Introduction

Thyroid papillary carcinoma is the most common type of thyroid cancer, accounting for approximately 80% of all thyroid malignancies. Surgical intervention plays a central role in the management of this disease, aiming to remove the cancerous thyroid tissue and potentially affected lymph nodes. This article provides an overview of the surgical treatment options available for thyroid papillary carcinoma, highlighting their goals, techniques and considerations. Unilateral thyroid papillary carcinoma, a common form of thyroid cancer, necessitates surgical intervention for optimal management. Over the years, surgical techniques have evolved to provide better outcomes, reduced morbidity and improved cosmetic results. In recent times, the lateral supraclavicular incision has emerged as a promising approach for unilateral thyroid papillary carcinoma surgery. This article explores the rationale, advantages and considerations associated with the use of the lateral supraclavicular incision in this specific surgical procedure [1].

Total thyroidectomy involves the complete removal of the thyroid gland. It is considered the gold standard surgical treatment for thyroid papillary carcinoma, particularly in cases where the tumor is larger, multifocal, or has spread to the contralateral lobe. The procedure entails the removal of both thyroid lobes, the isthmus and the adjacent lymph nodes. Lobectomy involves the removal of only one lobe of the thyroid gland, along with the isthmus. This approach is typically considered when the tumor is small, confined to one lobe and does not exhibit aggressive features. It may be suitable for selected low-risk cases of thyroid papillary carcinoma, as it offers the advantage of preserving thyroid function while ensuring adequate cancer control. In cases where thyroid papillary carcinoma involves the central compartment lymph nodes, a central compartment neck dissection may be performed. This procedure aims to remove lymph nodes located along the trachea and adjacent to the thyroid gland. It helps to achieve accurate staging, reduce the risk of recurrence and guide further treatment decisions. When thyroid papillary carcinoma spreads to the lateral neck lymph nodes, a modified radical neck dissection may be required. This procedure involves the removal of lymph nodes in the lateral neck compartments, targeting levels II, III, IV and V. It is performed to ensure adequate tumor clearance and reduce the risk of recurrence in the lateral neck region [2].

Discussion

Understanding unilateral thyroid papillary carcinoma

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Received: 16 February, 2023, Manuscript No. JCTT-23-101721; **Editor assigned:** 18 February, 2023, PreQC No. P-101721; **Reviewed:** 06 March, 2023, QC No. Q-101721; **Revised:** 11 March, 2023, Manuscript No. R-101721; **Published:** 19 March, 2023, DOI: 10.37421/2471-9323.2023.9.214

Unilateral thyroid papillary carcinoma refers to the presence of papillary carcinoma, the most prevalent form of thyroid cancer, confined to one lobe of the thyroid gland. Surgical intervention is the primary treatment modality, aiming to remove the affected lobe and potentially any associated lymph nodes. The choice of surgical approach plays a crucial role in achieving complete tumor resection, minimizing complications and optimizing patient outcomes. The lateral supraclavicular incision is a surgical technique that involves making an incision in the skin above the clavicle, along the lateral border of the sternocleidomastoid muscle. This approach provides direct access to the affected thyroid lobe and associated lymph nodes. The incision is typically small, discreet and strategically placed to optimize cosmetic outcomes.

Advantages of the lateral supraclavicular incision

Improved Visualization and Access: The lateral supraclavicular incision provides excellent visualization and direct access to the thyroid lobe and associated lymph nodes. This facilitates precise identification and removal of the tumor, ensuring complete resection and reducing the risk of recurrence. Preservation of the Contralateral Thyroid Lobe: By targeting the affected thyroid lobe specifically, the lateral supraclavicular incision allows for preservation of the contralateral lobe, minimizing the risk of postoperative hypothyroidism and the need for lifelong hormone replacement therapy. Reduced Risk of Complications: Compared to traditional approaches like the traditional collar incision or midline incision, the lateral supraclavicular incision offers potential advantages in terms of reduced risk of complications. It avoids dissection near the recurrent laryngeal nerve, minimizing the risk of nerve injury and vocal cord dysfunction. Additionally, the approach can minimize postoperative pain, improve wound healing and reduce the occurrence of hematoma or seroma formation [3].

Enhanced cosmesis: The lateral supraclavicular incision results in a small, inconspicuous scar that can be easily hidden by clothing or hair. This aesthetic advantage is particularly important for patients, as it contributes to their psychological well-being and satisfaction with the surgical outcome. While the lateral supraclavicular incision offers numerous advantages, there are some considerations and limitations to keep in mind. The lateral supraclavicular incision experise and familiarity with the anatomy of the area. Surgeons with experience in thyroid surgery and proficiency in this specific approach can optimize outcomes and minimize potential risks. Not all patients with unilateral thyroid papillary carcinoma are suitable candidates for the lateral supraclavicular incision. Factors such as tumor size, location and patient anatomy need to be carefully evaluated to determine the appropriateness of this approach [4].

Limited exposure for central compartment lymph nodes: The lateral supraclavicular incision provides limited exposure to the central compartment lymph nodes. If lymph node involvement is suspected, additional techniques may be required to ensure adequate clearance [5].

Conclusion

The lateral supraclavicular incision has emerged as a promising approach in the surgical management of unilateral thyroid papillary carcinoma. It offers several advantages, including improved visualization and access to the affected thyroid lobe, preservation of the contralateral lobe, reduced risk of complications and enhanced cosmetic outcomes. However, the success of this technique relies on surgeon expertise and appropriate patient selection. Careful evaluation of tumor characteristics and patient anatomy is crucial to determine the suitability of the lateral supraclavicular incision for each individual case. With ongoing advancements in surgical techniques and continued research, the lateral supraclavicular incision holds promise as a valuable approach in the treatment of unilateral thyroid papillary carcinoma, offering improved outcomes and patient satisfaction.

Acknowledgement

None.

Conflict of Interest

No conflict of interest.

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How to cite this article: Liu, Kai. "Lateral Supraclavicular Incision in Unilateral Thyroid Papillary Carcinoma Surgery: A Promising Approach." *J Cosmo Tricho* 9 (2023): 214.