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Complex Rare Endocrine Cases: Surgical & Multidisciplinary Management

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Introduction

This case report details a rare instance of synchronous bilateral adrenal pheochromocytoma surgically removed using minimally invasive techniques in a young patient. It highlights the diagnostic challenges and successful management strategies for this uncommon endocrine condition, emphasizing the benefits of a staged surgical approach[1].

This report examines a case of recurrent laryngeal nerve palsy following robotic thyroidectomy for thyroid cancer. It discusses the potential causes, diagnostic methods, and management strategies for this complication, offering insights into preventing and addressing nerve injuries in advanced thyroid surgery[2].

This case details primary hyperparathyroidism caused by a rare retropharyngeal parathyroid adenoma, leading to dysphagia. The report illustrates the diagnostic challenges of ectopic parathyroid glands and the successful surgical management required to alleviate symptoms and correct hypercalcemia[3].

This report describes a rare pancreatic neuroendocrine tumor in a patient with Von Hippel-Lindau disease, highlighting the complex surgical and genetic considerations. It emphasizes the need for careful preoperative evaluation and multidisciplinary management in such challenging cases[4].

This article presents a case of aggressive medullary thyroid carcinoma that showed rapid progression and multiple metastases. It underscores the importance of early diagnosis, comprehensive staging, and aggressive surgical and systemic treatment strategies for managing highly malignant variants of this cancer[5].

This case report details the successful laparoscopic transperitoneal adrenalectomy for a large adrenal myelolipoma complicated by spontaneous retroperitoneal hemorrhage. It illustrates the challenging surgical management required for such rare adrenal tumors, particularly when presenting with acute complications[6].

This report describes a case of Multiple Endocrine Neoplasia Type 2A, presenting with both pheochromocytoma and medullary thyroid carcinoma. It highlights the importance of genetic testing and comprehensive surveillance for early detection and surgical intervention in managing complex inherited endocrine syndromes[7].

This article presents the management of a malignant insulinoma with liver metastasis, emphasizing an interdisciplinary approach. It demonstrates the complex diagnostic and therapeutic strategies, including surgical resection and systemic therapies, required for advanced neuroendocrine tumors[8].

This report details the surgical management of an ectopic mediastinal parathyroid adenoma, a challenging cause of primary hyperparathyroidism. It highlights the diagnostic difficulties in localizing such lesions and the successful application of surgical techniques for their removal[9].

This case describes a rare instance of thyroglossal duct cyst carcinoma with regional lymph node metastasis. It underscores the importance of thorough pathological examination and surgical management, including lymph node dissection, even for seemingly benign neck masses[10].

Description

Endocrine surgery frequently involves managing rare and complex conditions, where precise diagnosis and tailored surgical approaches are crucial for optimal patient outcomes. This collection of case reports highlights the diverse challenges encountered in this specialized field, including uncommon tumor presentations, post-surgical complications, and inherited syndromes. Each case underscores the need for meticulous preoperative planning, advanced surgical techniques, and an interdisciplinary approach.

Several cases pertain to adrenal gland pathology. A rare instance of synchronous bilateral adrenal pheochromocytoma was surgically removed using minimally invasive techniques in a young patient, highlighting diagnostic challenges and successful management, including a staged surgical approach [1]. Another report details laparoscopic transperitoneal adrenalectomy for a large adrenal myelolipoma complicated by spontaneous retroperitoneal hemorrhage, illustrating demanding surgical management for rare adrenal tumors with acute complications [6]. Furthermore, Multiple Endocrine Neoplasia Type 2A, presenting with both pheochromocytoma and medullary thyroid carcinoma, emphasizes the importance of genetic testing and comprehensive surveillance for early detection and intervention in inherited endocrine syndromes [7].

Thyroid-related conditions and surgical sequelae are also prominent. Recurrent laryngeal nerve palsy following robotic thyroidectomy for thyroid cancer is examined, discussing its causes, diagnosis, and management to prevent nerve injuries in advanced surgery [2]. An aggressive medullary thyroid carcinoma with rapid progression and multiple metastases underscores the importance of early diagnosis, comprehensive staging, and aggressive surgical and systemic treatment strategies for highly malignant variants [5]. A rare thyroglossal duct cyst carcinoma with regional lymph node metastasis highlights the need for thorough pathological examination and extensive surgical management, including lymph node dissection, even for seemingly benign neck masses [10].

Parathyroid gland cases reveal distinct diagnostic and surgical hurdles. Primary

hyperparathyroidism caused by a rare retropharyngeal parathyroid adenoma led to dysphagia, illustrating diagnostic challenges of ectopic parathyroid glands and successful surgical management [3]. Similarly, surgical management of an ectopic mediastinal parathyroid adenoma, another challenging cause of primary hyperparathyroidism, discusses diagnostic difficulties in localizing such lesions and successful surgical techniques for removal [9].

Finally, specific neuroendocrine tumors present unique surgical and genetic considerations. A rare pancreatic neuroendocrine tumor in a patient with Von Hippel-Lindau disease emphasizes complex surgical and genetic implications, stressing careful preoperative evaluation and multidisciplinary management [4]. The management of malignant insulinoma with liver metastasis demonstrates complex diagnostic and therapeutic strategies, including surgical resection and systemic therapies, required for advanced neuroendocrine tumors [8].

Conclusion

This collection of case reports illustrates the multifaceted challenges and innovative approaches in managing a diverse range of rare endocrine conditions and related surgical scenarios. The cases cover synchronous bilateral adrenal pheochromocytoma requiring minimally invasive techniques, recurrent laryngeal nerve palsy post-robotic thyroidectomy, and primary hyperparathyroidism due to ectopic parathyroid adenomas. Further reports detail a rare pancreatic neuroendocrine tumor in Von Hippel-Lindau disease, aggressive medullary thyroid carcinoma with rapid progression, and adrenal myelolipoma complicated by hemorrhage. Management of Multiple Endocrine Neoplasia Type 2A with pheochromocytoma and medullary thyroid carcinoma highlights the role of genetic testing. Also presented is a malignant insulinoma with liver metastasis requiring an interdisciplinary approach, and thyroglossal duct cyst carcinoma with lymph node metastasis emphasizing thorough pathological examination. Across these cases, common threads include the critical importance of early and accurate diagnosis, careful preoperative evaluation, advanced surgical techniques, and comprehensive, often multidisciplinary, treatment strategies to navigate the complexities of these challenging endocrine disorders.

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Conflict of Interest

None.

References

1. Mohammed Hamed Al-Harthy, Bader Al-Fadhli, Khamis Al-Harthi. "A Rare Case of Synchronous Bilateral Adrenal Pheochromocytoma Resected by Minimally Invasive Surgery in a Young Patient." *Sultan Qaboos Univ Med J* 24 (2024): e136-e140.
2. Yeon Min Kim, Seung Yeon Lee, Hyo Min Jeon. "Recurrent Laryngeal Nerve Palsy after Robotic Thyroidectomy for Thyroid Cancer: A Case Report." *Case Rep Otolaryngol* 2023 (2023): 7578207.
3. Ting Wang, Xiaoyang Shi, Qi Liu. "A Case Report of Primary Hyperparathyroidism Due to a Retropharyngeal Parathyroid Adenoma Causing Dysphagia." *J Med Case Rep* 16 (2022): 367.
4. Xiaofei Li, Ting Chen, Binhui Yu. "A Rare Case of Pancreatic Neuroendocrine Tumor in a Patient with Von Hippel-Lindau Disease: Surgical Challenges and Genetic Implications." *Front Surg* 9 (2022): 1007823.
5. Soo Jin Lee, Sang Jin Kim, Ji Hye Kim. "Aggressive Medullary Thyroid Carcinoma with Rapid Progression and Multiple Metastases: A Case Report." *BMC Endocr Disord* 21 (2021): 115.
6. Fengming Zhu, Zhaochong Lin, Gang Zhang. "Laparoscopic Transperitoneal Adrenalectomy for a Large Adrenal Myelolipoma with Spontaneous Retroperitoneal Hemorrhage: A Case Report." *J Xray Sci Technol* 31 (2023): 747-756.
7. Shaohong Yang, Qian Li, Tao Zhang. "Multiple *Endocrine Neoplasia Type* 2A with Pheochromocytoma and Medullary Thyroid Carcinoma: A Case Report." Front Surg 10 (2023): 1155985.
8. Shanshan Chen, Xinxin Cai, Jiabin Liu. "Management of Malignant Insulinoma with Liver Metastasis: A Case Report of an Interdisciplinary Approach." *Front Surg* 9 (2022): 846665.
9. Yuxiao Liu, Weidong Zhang, Changchun Wang. "Surgical Management of Ectopic Mediastinal Parathyroid Adenoma: A Case Report." *Int J Gen Med* 16 (2023): 4977-4981.
10. Weiping Yu, Guangbin Wu, Fali Ma. "Thyroglossal Duct Cyst Carcinoma with Regional Lymph Node Metastasis: A Case Report." *J Int Med Res* 48 (2020): 0300060520932087.

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