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Editorial
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Minimally Invasive Parathyroidectomy in the Treatment of Patients with MEN I

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Editorial

Multiple Endocrine Neoplasia type 1 (MEN I) is a rare autosomal dominant hereditary disorder that develops multiple tumors arising from various endocrine organs, including the parathyroid gland, endocrine pancreas and pituitary gland. PNETs are most prevalent in MEN I with nearly all individuals having multiple non-functional adenomas on autopsy. The most common type of PNETs in MEN I is a non-functional tumour, however, the majority of MEN I patients will develop symptomatic lesions, with around 50% developing Zollinger-Ellison (ZE) syndrome from an underlying gastrinoma, roughly 20% developing symptoms of an insulinoma, and 3% to 5% developing VIPomas or glucagonomas Hyperparathyroidism is also quite common in patients with MEN I.

Traditionally the treatment of hyperparathyroidism for patients with MEN I was subtotal parathyroidectomy or total parathyroidectomy and auto transplantation. Primary hyperparathyroidism in patients with MEN I usually affect all parathyroid glands, rendering focused parathyroidectomy inappropriate. Given that four gland parathyroid explorations carries a high risk of surgical complications, in the era of minimally invasive parathyroidectomy, the removal of only abnormal glands guided by preoperative localizing studies has been suggested. The main advantage of this approach is the minimization of the risk of hypoparathyroidism. In that aspect, a relevant retrospective cohort study has been published including 26 patients with MEN I associated hyperparathyroidism who underwent minimally invasive parathyroidectomy or conventional subtotal or total parathyroidectomy [1]. In a mean follow up of 19 months no case of hypocalcaemia or recurrence had been developed in the minimally invasive parathyroidectomy group. In the conventional parathyroidectomy group there was a 30% recurrence in a follow up of 133 months and 60% hypocalcaemia in the total parathyroidectomy group and 40% hypocalcaemia in the subtotal parathyroidectomy group. The authors concluded that minimally invasive parathyroidectomy could be an option for patients with MEN I and commented that although recurrence is inevitable for MEN I associated hyper-para-thyroidism it could be treated with focused parathyroidectomy [1]. However, Nitubol et al., [2] performed a retrospective study including 99 patients with MEN I associated hyperparathyroidism, in order to investigate the outcome in patients treated with limited parathyroidectomy compared with patients treated with total parathyroidectomy. According to the study, persistent hyperparathyroidism was more common in patients whose initial operations involved removal of 1 or 2 glands. In addition preoperative localization studies failed to identify enlarged contralateral glands in a great number of patients. The authors concluded that preoperative identification of a single enlarged parathyroid gland is not enough to justify unilateral neck exploration, as additional enlarged contralateral parathyroid glands might be missed. Undoubtedly, the idea of minimally invasive parathyroidectomy in MEN I patients is interesting, existing data are limited and further research is needed before valid conclusions can be drawn on the suitability of this approach.

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