INTRODUCTION

Primary hyperparathyroidism (HPT) is a common disease that occurs in one of 500 women and one of 2,000 men over the age of 40. In 85% to 90% of patients, primary HPT is caused by a solitary parathyroid adenoma. Recent advances in evaluation and surgical management of HPT, including improved localization techniques and intraoperative parathyroid hormone (PTH) monitoring, have permitted a more targeted approach to parathyroid surgery. [1]

Parathyroidectomy is the only option available for the cure of primary hyperparathyroidism (PHPT), which is a common endocrine disorder and often causes secondary osteoporosis. This disease is now recognized as a disorder with few overt manifestations, presenting most often as mild or asymptomatic hypercalcemia. There are accumulating PHPT patients who are unwilling or are unsuitable for surgery. In these patients, bisphosphonate is a most useful candidate as supportive therapy. Calcimimetic agent which modulates the activity of calcium-sensing receptor on the surface of parathyroid cell and suppresses the secretion of parathyroid hormone, would be an effective nonsurgical approach for management of PHPT.[2]

Surgery for primary hyperparathyroidism has become one of the least invasive and safe procedures with the recent advances in the diagnosis and surgical technique. However, it is still difficult to prospect detailed post-operative conditions of the patient from the data of pre-operative examination. Because many factors related each other to make the preoperative conditions complicated. Thus, integrated interpretation of the patient is necessary before surgery, including general condition, coincidental disease, renal function, bone mineral density and its turnover, size and location of the lesion. Prevention and proper management of postoperative complications, such as hemorrhage, hypocalcemia, hoarseness and bone disease, is important for successful treatment of the disease.[3]

Accurate pre-operative localization of the hyperfunctioning parathyroid tissue is essential to aid successful surgical treatment. The onus of identifying this hyperfunctioning parathyroid tissue therefore falls on imaging techniques such as high-resolution ultrasound, radionuclide imaging, computed tomography and magnetic resonance imaging. [4]

In the past bilateral neck exploration was the gold standard for successful surgical management of primary hyperparathyroidism. More restricted procedures have been

introduced recently thanks to imaging techniques and intraoperative parathyroid hormone assay confirming eradication of hyperfunctioning tissue.[5]

The management of primary hyperparathyroidism (PHPT) has dramatically changed in the last 5 yr. Many more patients now undergo focused, limited or minimally invasive parathyroidectomy instead of traditional bilateral neck exploration. This change has taken place because of the improved accuracy of pre-operative localizing studies in selecting patients who have single-gland parathyroid disease (single adenoma) and can therefore have a minimally invasive parathyroidectomy. Sestamibi scanning followed by ultrasound, magnetic resonance imaging (MRI) and computed tomography (CT) scans are most accurate for localizing parathyroid tumors in patients with PHPT. Selective venous catheterization for PTH levels is useful when other localizing studies are negative or discordant in patients with persistent or recurrent PHPT. The routine use of one or more localizing studies commonly identifies the parathyroid tumor in patients with single-gland disease; but if localizing studies are negative or discordant, patients should have intra-operative PTH levels monitored or have a bilateral neck exploration to ensure a high rate of biochemical cure.[6]

In recent years, several series have documented the feasibility of endoscopic approaches for parathyroid diseases.[7]

Minimally invasive radio-guided parathyroidectomy (MIRP) has been embraced as an acceptable therapeutic approach to primary hyperparathyroidism. Preoperative sestamibi scanning has facilitated this technique.[8]

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Aim Of Work

The aim of this work is to discuss and identify the new trends in management of primary hyperparathyroidism.