

How to deal with Malfunctioning Glands

Both thyroid and parathyroid glands are part of the endocrine system, but they produce different hormones and have different functions. A patient with a disorder in the parathyroid gland will secrete excessive parathyroid hormone, leading to a condition known as hyperparathyroidism.

Hyperparathyroidism is one of the most common endocrine diseases. The disease has a female prevalence and its incidence increases with age. With the adoption of routine biochemical screening tests, an increasing number of cases can be identified at the pre-symptomatic stage. Data from the Department of Surgery of HKU Li Ka Shing Faculty of Medicine shows that the number of patients with hyperparathyroidism undergoing surgical treatment has increased more than 10 folds over the last 20 years.

Parathyroid gland is important in maintaining the levels of serum calcium and phosphorus. Hyperparathyroidism will lead to an excessive level of calcium in blood (hypercalcemia) associated with a deficiency in serum phosphorus. About 90% of these patients have one benign tumour while <10% have one or more abnormal glands; only 1% have parathyroid cancer.

Symptoms of parathyroid disease will manifest as problems in kidney, bone, stomach, intestines as well as changes in cognitive and mental status although there is no symptom for patients with early stage diseases. The etiology of parathyroid disease remains unknown, but this condition can be diagnosed by blood tests and hormonal studies. Nuclear scanning can localize majority of abnormal glands. Surgical excision of the abnormal gland(s) is the most effective treatment for this disease with a success rate of 98% and can be done using minimally invasive technique under local or regional anaesthesia.