

# Ectopic hyperparathyroidism due to an auto-transplanted parathyroid gland

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## Abstract

Although parathyroid tissue auto-transplantation is useful for preventing hypoparathyroidism during thyroidectomy, hyperparathyroidism may occur due to proliferation of the transplanted parathyroid tissue. Hyperparathyroidism due to the auto-grafted parathyroid gland should be suspected in patients who undergone parathyroid auto-transplantation.

## Key Clinical Message

Hyperparathyroidism due to the autografted parathyroid gland should be suspected in patients who undergone parathyroid auto-transplantation.

## Case Presentation

A 65-year-old woman was referred to our hospital because of hypercalcemia. She had undergone total thyroidectomy for thyroid cancer 30 years prior along with left-sided parathyroid auto-transplantation in her neck, without any family history of endocrine diseases. Physical examination showed a surgical scar on the left side of her neck (**Fig. 1**). Her serum calcium, phosphate, and intact parathyroid hormone levels were 11.3 mg/dL, 3.4 mg/dL, and 170 pg/mL, respectively. Tc-99m-MIBI demonstrated increased uptake in the autograft in the left supraclavicular region (**Fig. 2**). Based on these findings, primary hyperparathyroidism due to the autografted parathyroid gland was strongly suspected. Although parathyroid tissue auto-transplantation is useful for preventing hypoparathyroidism during thyroidectomy, hyperparathyroidism may occur due to proliferation of the transplanted parathyroid tissue (1, 2). This case suggests that long-term regular monitoring of serum calcium levels may be necessary after parathyroid auto-transplantation even in patients without multiple endocrine neoplasia.

## Figure Legend

**Figure 1:** On physical examination, a surgical scar on the left side of her neck was observed.

**Figure 2:** Tc-99m-MIBI demonstrated increased uptake in the autograft in the left supraclavicular region (arrowhead).

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