



# Patients with Primary Hyperparathyroidism Who Required Three or More Parathyroidectomies: Could This Be Prevented?

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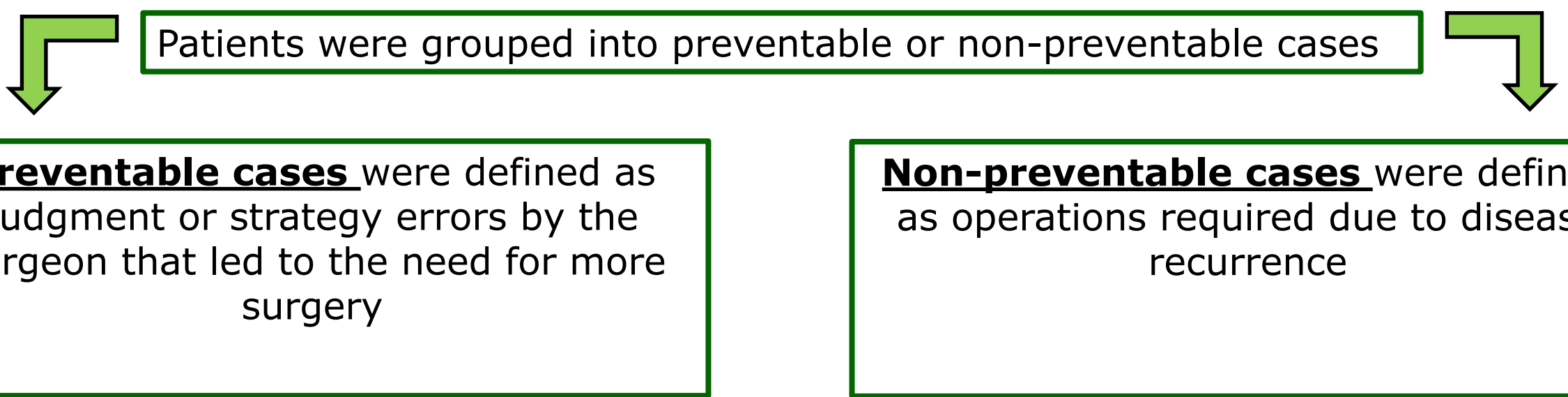
## Introduction

- Parathyroidectomy is the definitive treatment for primary hyperparathyroidism (PHPT)
- A subset of individuals face challenges of persistent hyperparathyroidism, necessitating three or more operations
- Common causes of persistent PHPT:
  - Overlooked parathyroid adenoma
  - Multiple gland disease
  - Inexperience of the surgeon

**Aim: Determine if any of these re-operations could have been prevented**

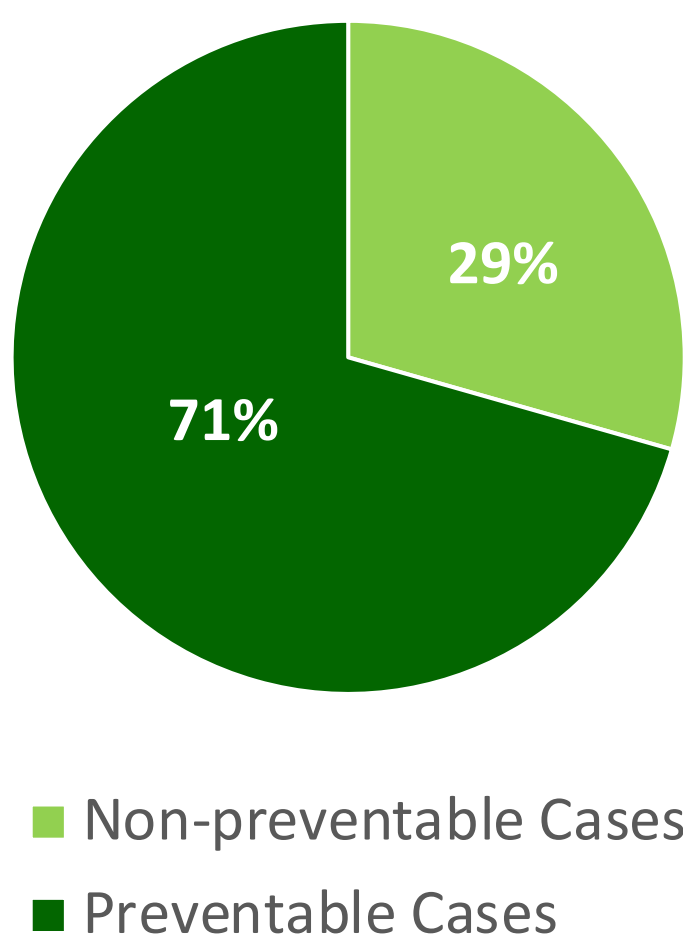
## Methods

- Retrospective review from 2002-2022 of patients with primary hyperparathyroidism who underwent three or more parathyroidectomies



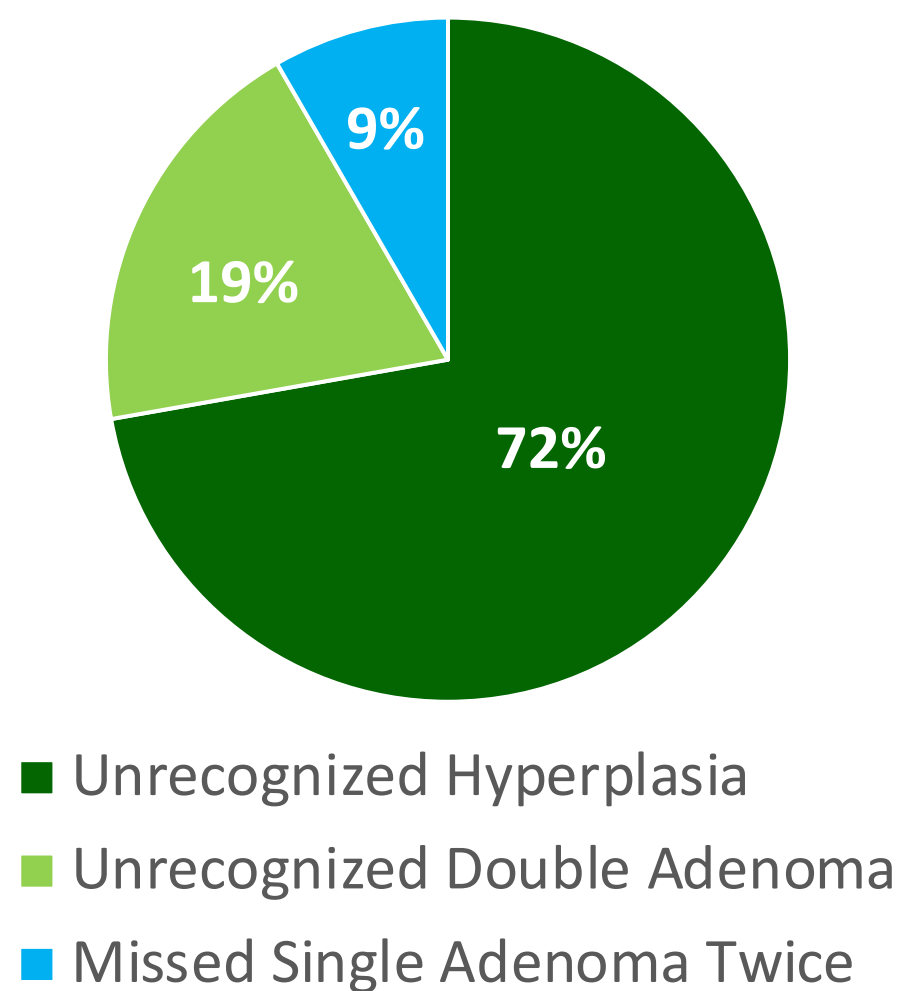
## Results

### Patients With Three or More Parathyroidectomies



**Figure 1.** Of 51 patients who underwent three or more parathyroidectomies, 36 (71%) of cases were preventable and 15 (29%) of cases were non-preventable

### Pathology Of Preventable Cases



**Figure 2.** Of the patients who had preventable cases, 26 (72%) were due to unrecognized hyperplasia, 7 (19%) were due to an unrecognized double adenoma, and 3 (9%) were due to a missed single adenoma twice

## Conclusions

- A significant majority (71%) of patients requiring three or more parathyroidectomies could have avoided re-operation
- Recognizing the underlying factors of these preventable cases will hopefully reduce the need for these repeat operations