

Outcomes For Hypercalcemic Crisis In The Era of Targeted Parathyroidectomy

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Background and Methods

- Hypercalcemic crisis is a rare and potentially fatal complication of primary hyperparathyroidism
- Prior studies have demonstrated that patients in hypercalcemic crisis have a higher operative failure rate
- Targeted parathyroidectomy guided by localization studies and intraoperative PTH monitoring was undertaken in 839 patients
- Outcome measures of operative success and recurrence were compared between crisis and non-crisis groups



Results: Demographics

Crisis (Ca²⁺ >14mg/dL)

Non-crisis

 Crisis patients were more likely to present with Mental status changes 24% vs 3%, p<0.0001 Pancreatitis 6% vs 0.2%, p=0.001





Results: Intraoperative Findings

	Crisis (N=34)	Non-Crisis (N=805)	P-value
Gland size	2.4 cm	1.8 cm	0.026
Mediastinal ectopic glands	5 (15%)	13 (2%)	<0.0001
Parathyroid carcinoma	2 (7%)	3 (0.4%)	0.015
Bilateral neck exploration	4 (12%)	122 (15%)	0.806



Outcomes

	Crisis (N=34)	Non-Crisis (N=805)	P-value
Operative Success	34 (100%)	787 (97%)	>0.99
Recurrence	1 (3%)	11 (1.4%)	0.393
Follow-up (months)	29 (6-154)	36 (6-251)	0.332



Conclusion

- Patients presenting with hypercalcemic crisis have comparable surgical outcomes following targeted parathyroidectomy despite presenting more often with ectopic glands and parathyroid cancer.
- Targeted parathyroidectomy is successful and durable in the treatment of patients who present in hypercalcemic crisis.