

# WEAK: Post-Surgical Hypokalemic Paroxysmal Paralysis

## A Case Report

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### Introduction

Hypokalemic paroxysmal paralysis may cause episodes of weakness and cramping following even minor surgical procedures due to both iatrogenic factors and physiological stress. This diagnosis should be considered and treated acutely and monitored to prevent future episodes.

### Case Description

A 32-year-old male with hidradenitis suppurativa with frequent I&Ds developed full body weakness/paralysis after an I&D.

- HPI:
- known history of hidradenitis suppurativa, requiring frequent I&D due to abscesses.
  - Pt often experienced cramping, weakness only after these procedures, but this hospitalization had full paralysis.
  - Pt received 2L LR in operating room

- PMH:
- Obesity, Insomnia, Generalized anxiety disorder, Low testosterone
- Initial ED Exam:
- 1/5 strength in lower extremities, 5/5 in Upper extremities

- Labs and Imaging:
- Serum potassium 3.0 mmol/L
  - TSH 0.276 uIU/mL, Free T4 1.14 ng/dL
  - SARS-CoV-2 Molecular Assay Negative
  - MRI CTL spine, CTA Head and neck negative

- Treatment:
- 10 mEq of IV potassium in ED

- Subsequent exam:
- Strength 5/5 in upper and lower extremities, though fine motor difficult

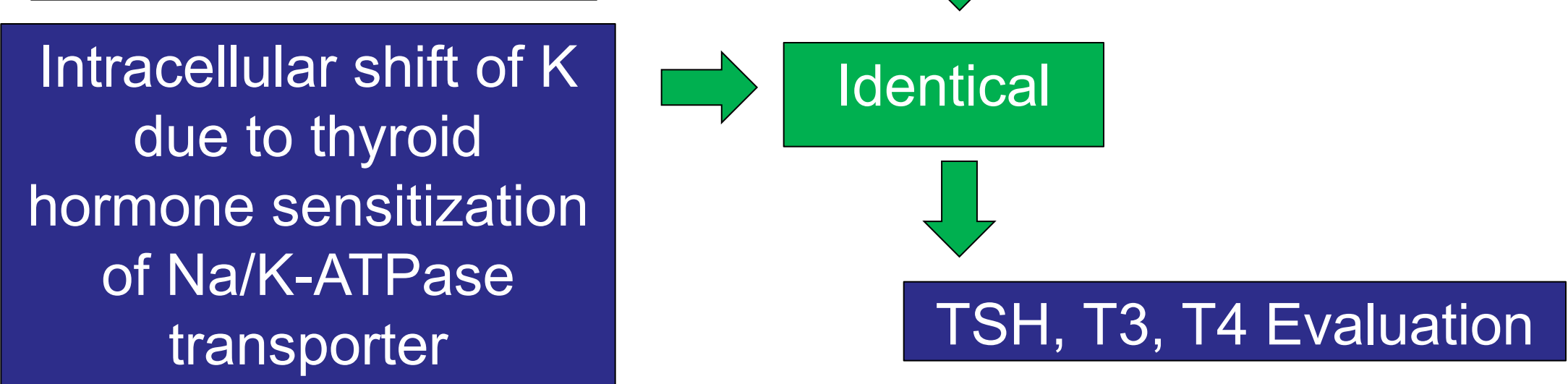
### Discussion

#### Hypokalemic Paroxysmal Paralysis<sup>1</sup>

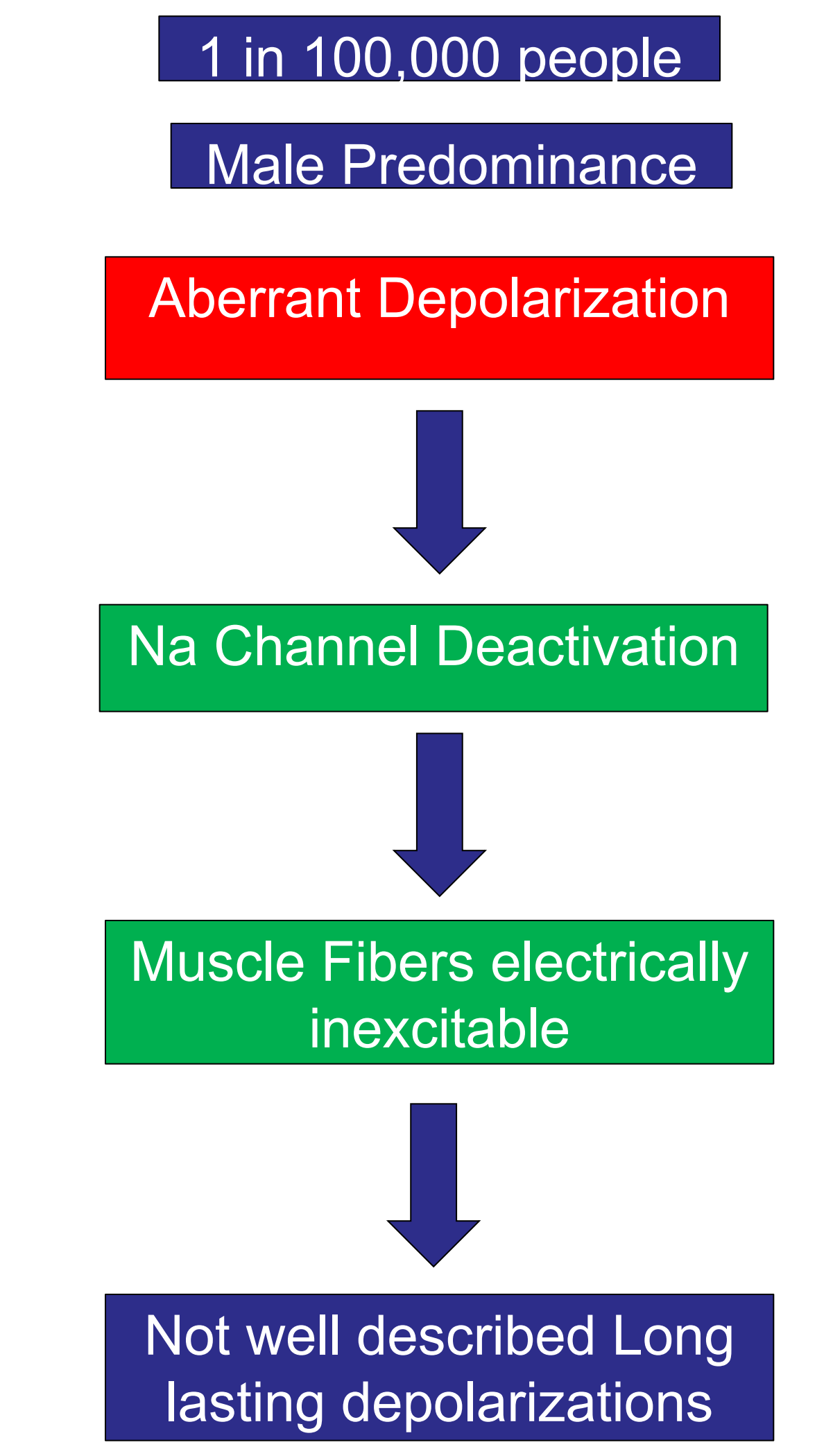
**Table 1** Clinical features of the primary PPs

	HypoPP	HyperPP	Andersen-Tawil
Age at onset	1st or 2nd decade	1st decade	1st or 2nd decade
Duration of attacks	Hours to days	Hours	Hours to days
EMG myotonia	No	Yes	No
Usual triggers	Rest after exercise, carbohydrate load	Rest after exercise, K-rich foods	Prolonged rest after exercise
Ictal K	↓	↑ or normal	↓ or normal or ↑
Fixed proximal weakness	Yes	Yes	Yes
Cardiac arrhythmias	No	No	Yes
Skeletal developmental anomalies	No	No	Yes
Response to potassium	Improves weakness	Triggers weakness	Depends on ictal K
Mutations	CACNA1S (60%) SCN4A (20%)	SCN4A (~50%)	Improves ECG; strength-variable KCNJ2 (~65%)

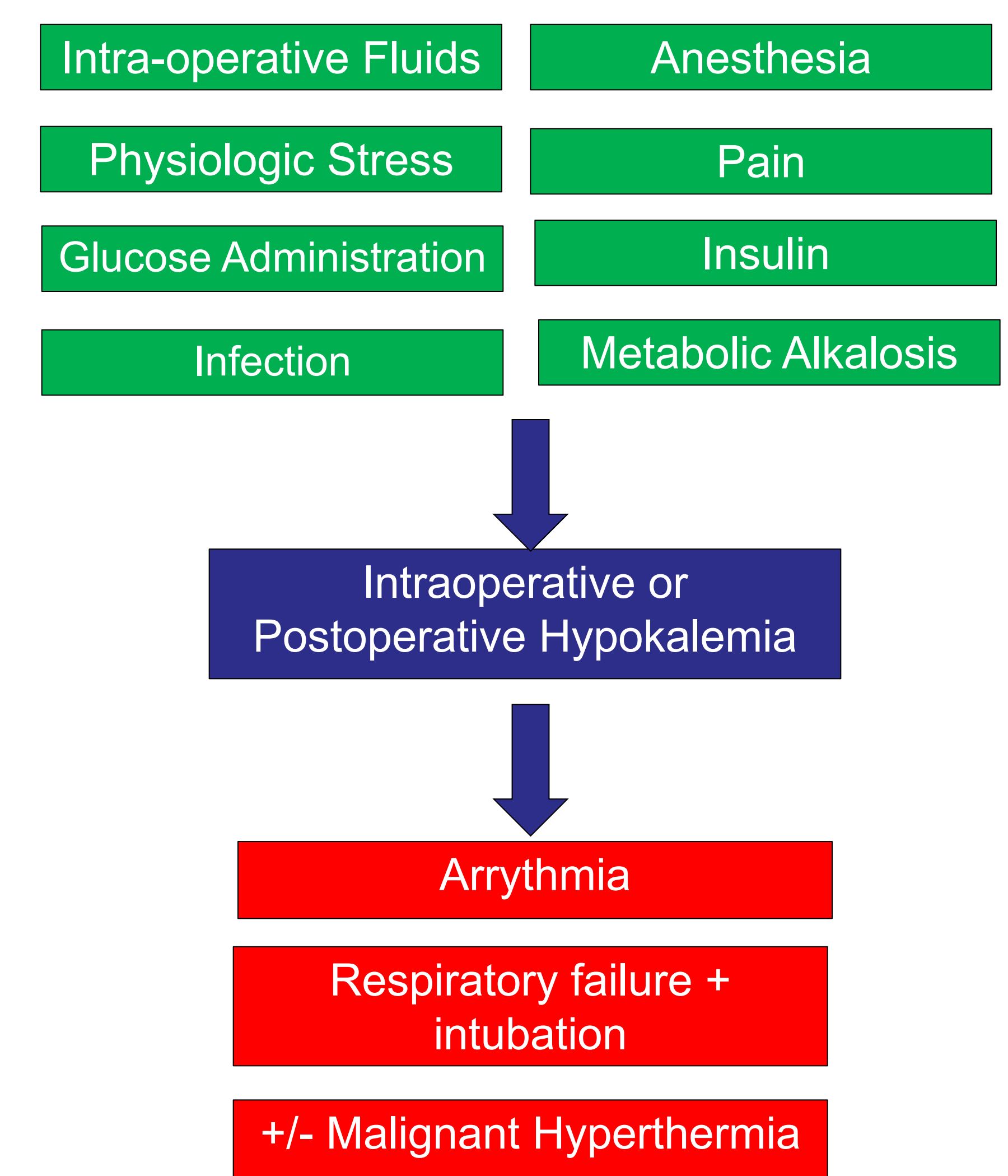
#### Thyrotoxic PP<sup>5</sup>



#### Familial PP Pathophysiology<sup>2,4</sup>



#### Paroxysmal Paralysis and Surgery<sup>3,4</sup>



### Sources

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