

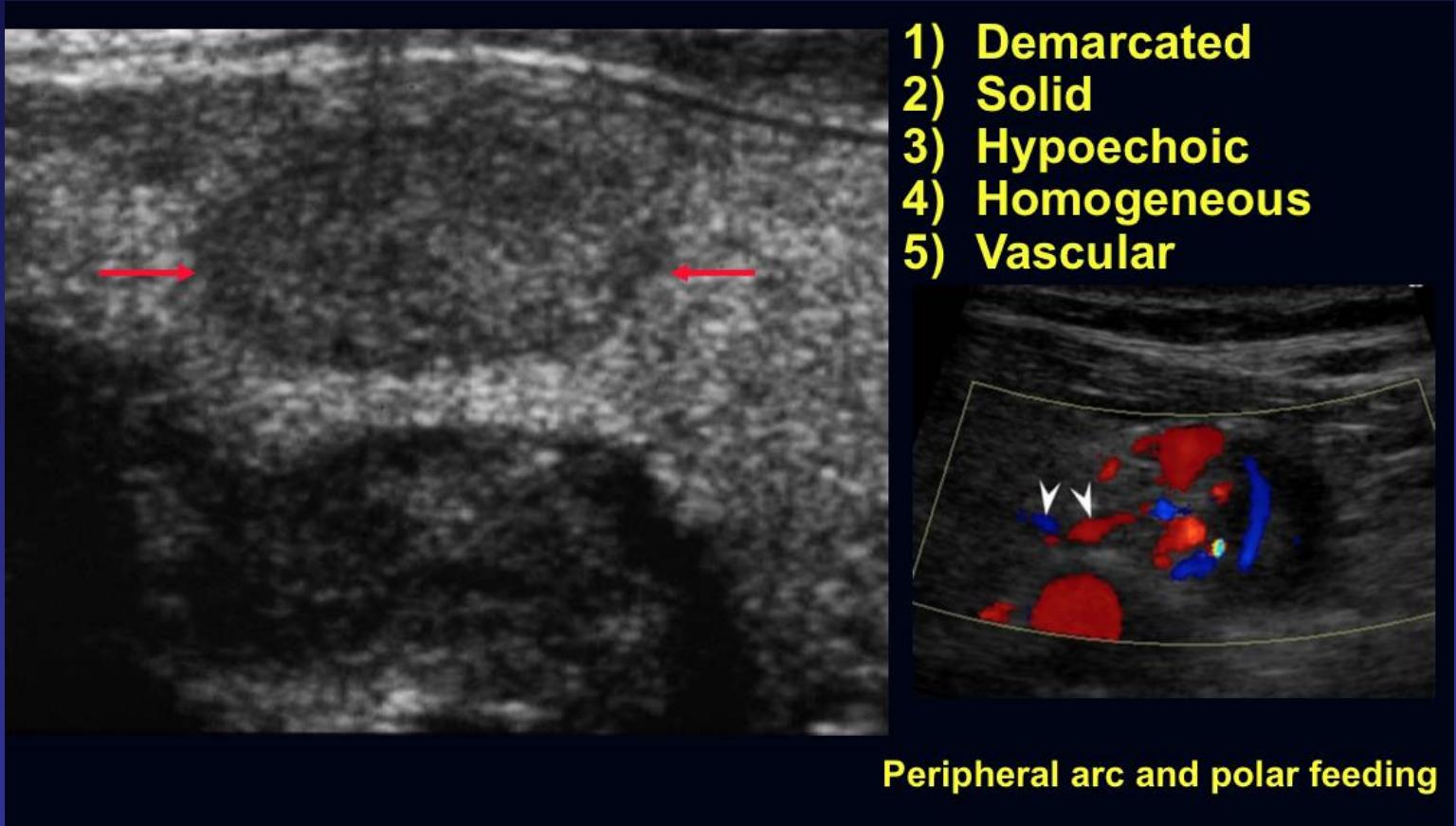
# Primary Hyperparathyroidism

- Hypersecretion PTH > hypercalcemia
- Causes:
  - 85% 1-3 cm adenoma
  - 10% hyperplasia (increased in MEN)
  - 2%-4% multiple adenomas
- < 1% parathyroid carcinomas
- Treatment surgical excision

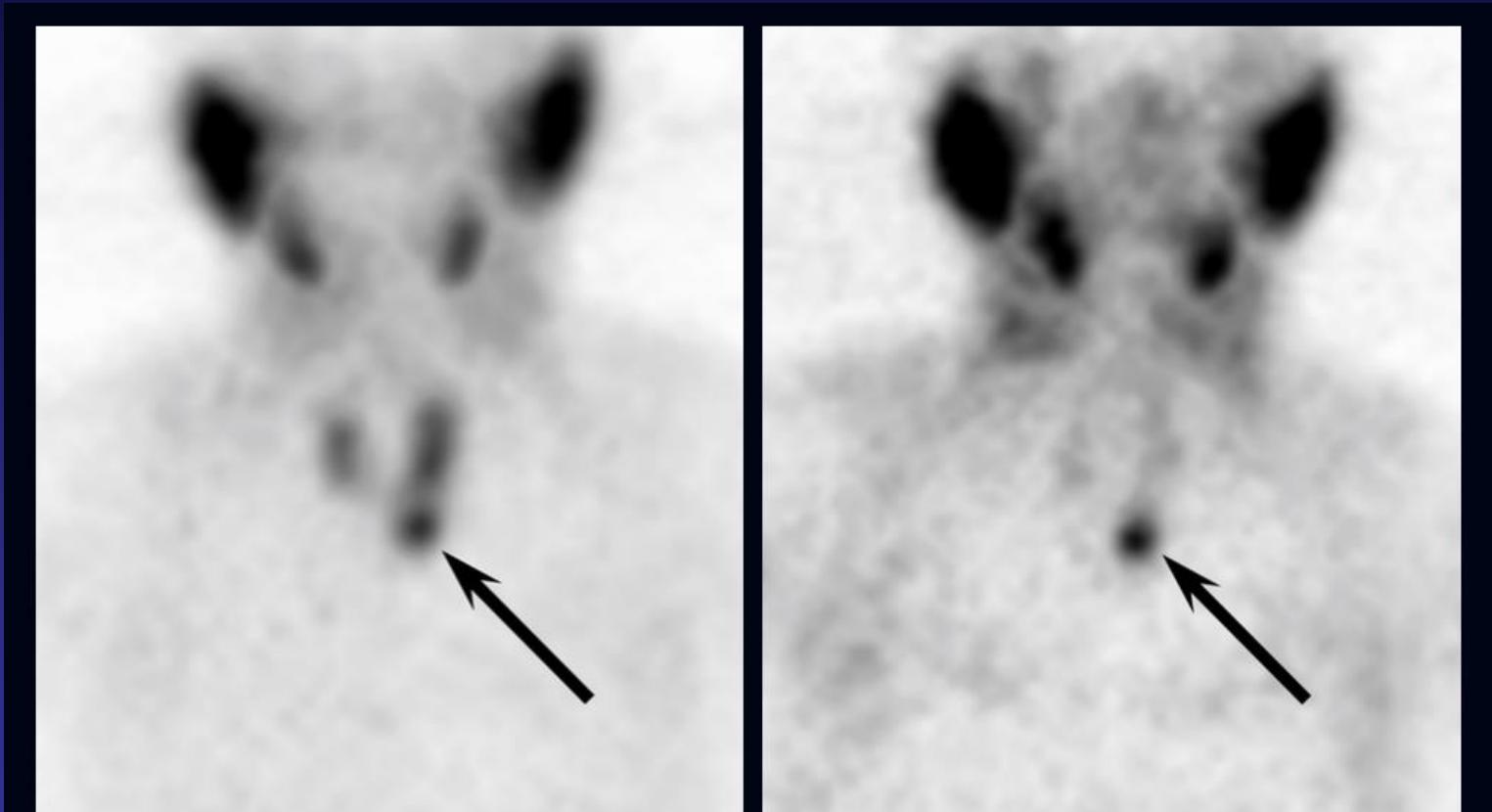
# Adenoma

- Intrathyroid parathyroid adenomas are rare (2-5%), completely intrathyroid + echogenic edge with thyroid gland.
- Incidence of multiple PTAs is low [2-3%]
- Mimics lymph node: Circumscribed, soft tissue mass; early enhancement >> lymph node (30 seconds after injection)

# Parathyroid adenoma



# Sestamibi



**15 minutes**

**Delayed 2 hrs**

# PITFALLS

- Adenoma with rapid washout
- Poor conspicuity of lesions near heart
- Very small adenomas - < 500 mg
- Thyroid lesions

# MR or CT

- Surgeon wants anatomic information
- Negative US and NM
- Negative US and positive NM, (ectopic adenoma)
- Persistent hyperparathyroidism after neck exploration
- *Due Arterial phase, can be tall*

# CT Adenoma

