

PARATHYROID GLAND

By

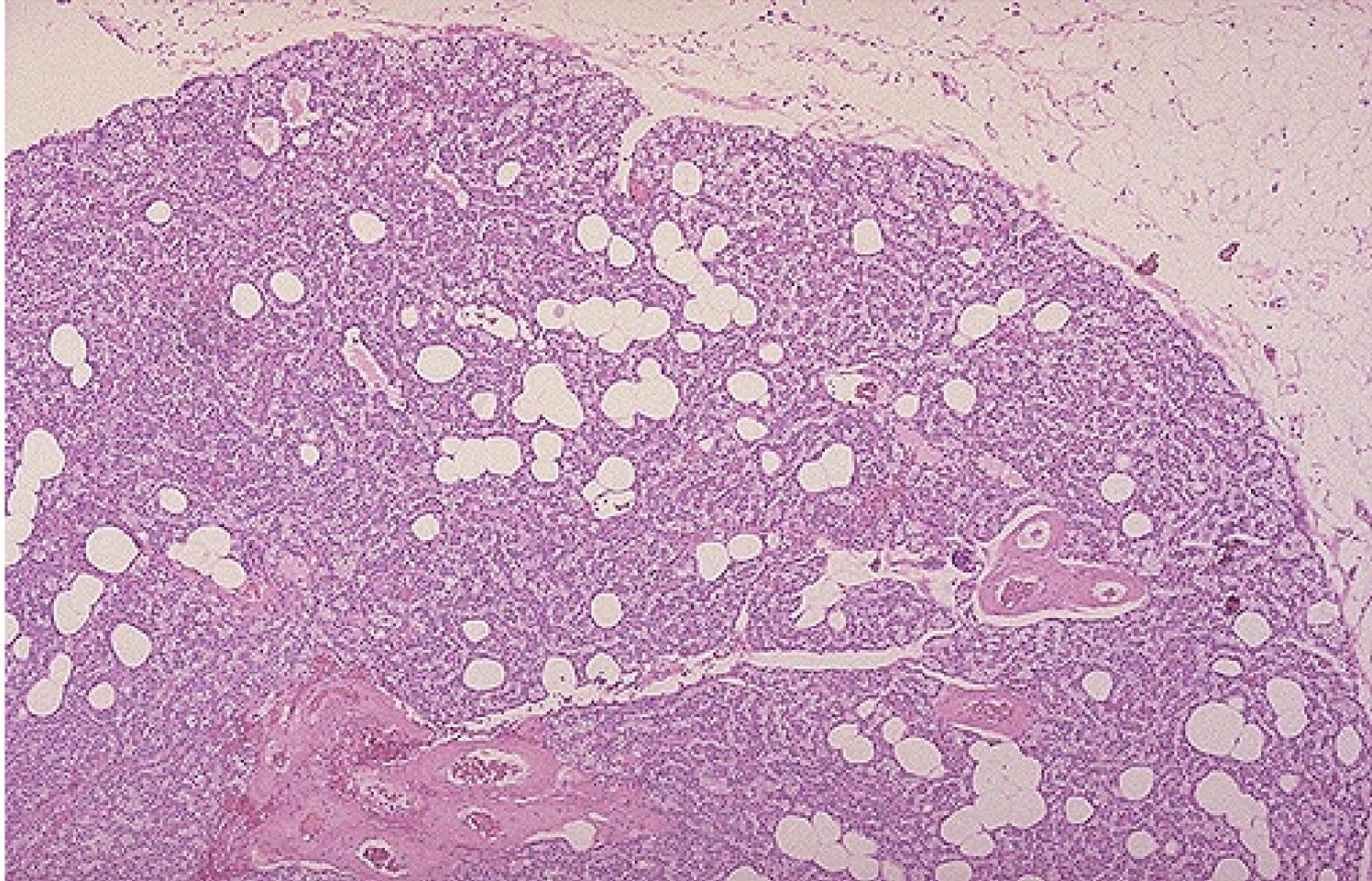
Ram Balak Mahto

Guest faculty

Zoology department

VSJ College Rajnagar Madhubani

PARATHYROID GLAND



Hyperparathyroidism

- Primary Hyperparathyroidism:
Increase PTH due to parathyroid lesion
(Adenoma/hyperplasia) → Hypercalcaemia

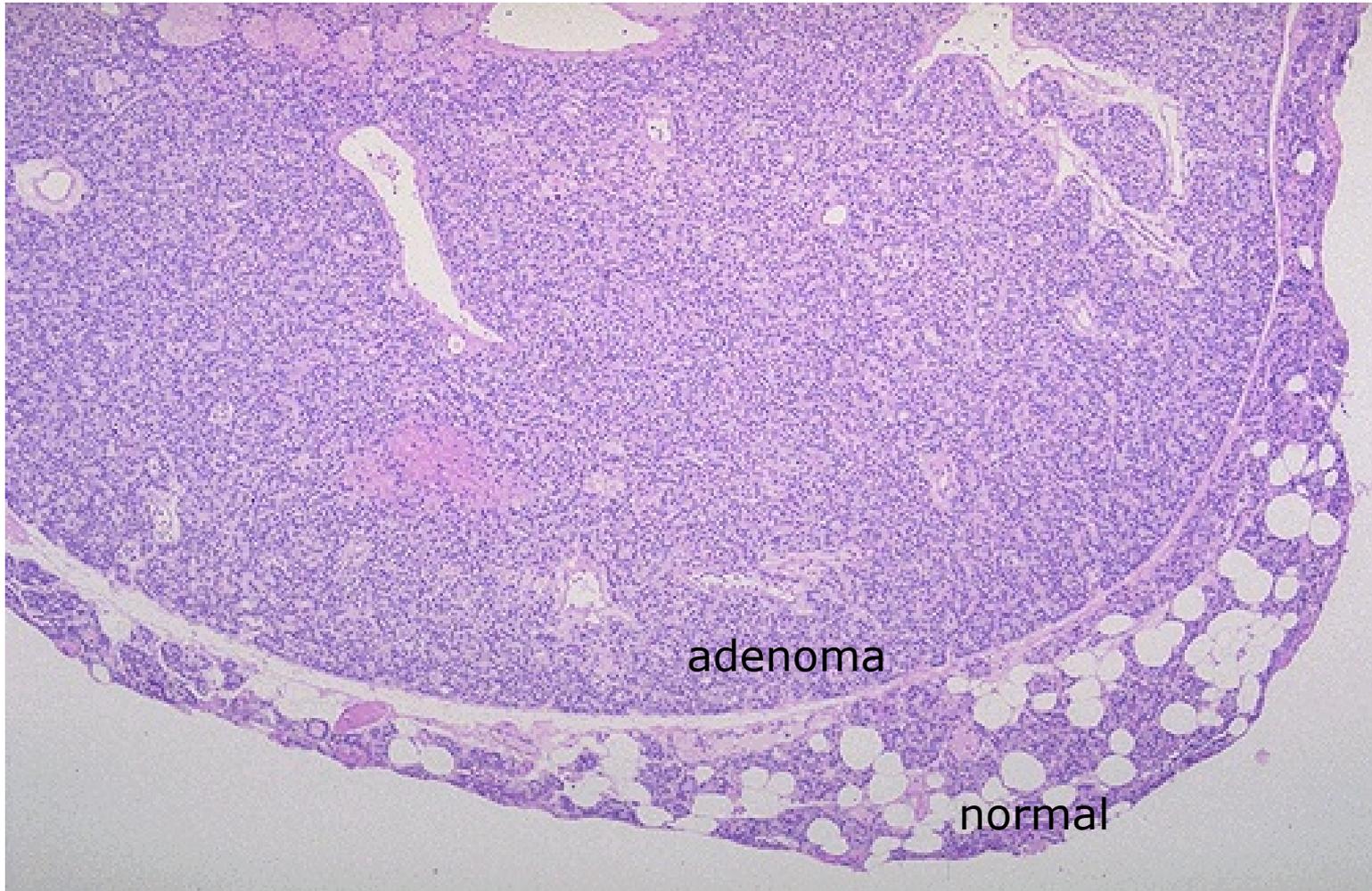
PTH → Hypercalcaemia :

- * osteoclast to mobilize Ca^{++} from bone
- * Ca^{++} reabsorption in the kidney
- * Ca^{++} absorption in Git .through vit .D.
- * excretion of phosphate in urine .
- Part of MEN I & II
- F : M = 3 : 1 > 40y

Clinical features

- Asymptomatic (lethargy&weakness)
- Bone pain (osteomalacia, osteoporosis & **osteitis fibrosa cystica/brown tumor**)
- Renal stones (nephrolithiasis)
- Nephrocalcinosis
- Metastatic calcification (blood vessels, soft tissue & & joints)
- Abdominal pain (peptic ulcer,pancreatitis) and mental change

Parathyroid adenoma



Adenoma & Hyperplasia

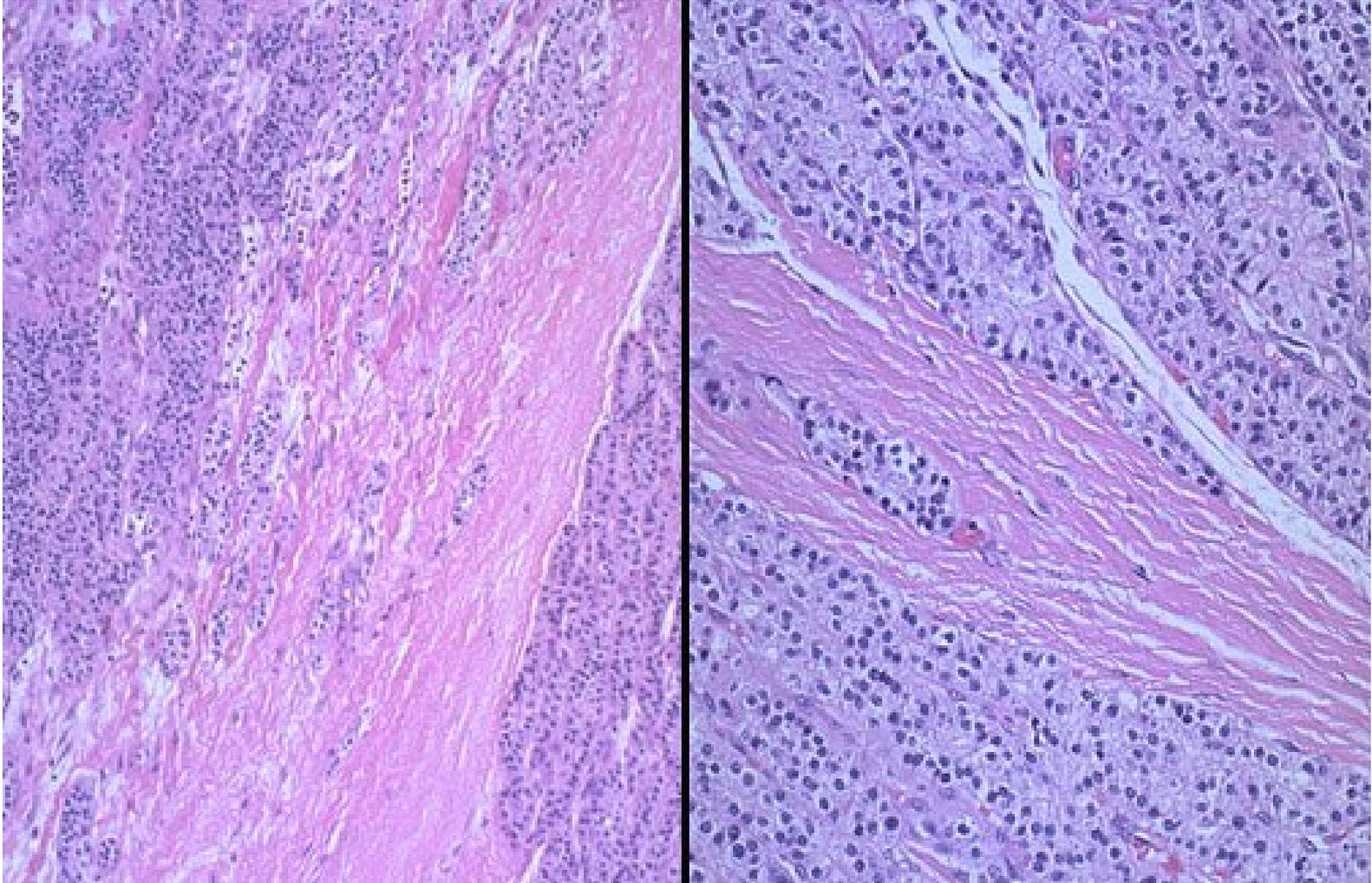
In adenoma one gland, Hyperplasia >one gland

- Frozen section (intraoperative consultation) required to confirm presence of parathyroid tissue.

Carcinoma of parathyroid:

- * Rare
 - Invasion and metastasis
 - Bands of collagen in the stroma
 - High mitotic figures.

Parathyroid carcinoma



MULTIPLE ENDOCRINE NEOPLASIA (MEN)

By

Ram Balak Mahto

(PRNU/GT/ZOOL/07)

Guest faculty

Zoology department

Forbesganj college forbesganj

MULTIPLE ENDOCRINE NEOPLASIA (MEN)

- **MEN** are syndromes characterized by hyperplastic or neoplastic involvement of at least two endocrine glands and sometimes associated with non-endocrine lesions.

MEN I: Wermer's Syndrome

- Parathyroid adenom/hyperplasia .
- Pituitary adenoma .
- Pancreatic lesions (hyperplasia adenoma , carcinoma)
- Mutant gene(MEN1) locus at 11q13
- Autosomal dominant

MEN II (IIa):Sipple Syndrome

- Medullary carcinoma of thyroid
- Pheochromocytoma .
- Occasionally parathyroid lesion (30%)
- Mutant gene locus at 10q11.2
(*RET proto-oncogen*)
- *Autosomal dominant*

MEN III (IIb):William syndrome: similar to MEN II plus

- Marfanoid bodily habitus
- Multiple mucocutanenous ganglioneuromas
- Parathyroid involvement :
(none/rare).