

Hyperthyroidism at a glance

Epidemiology

Age: most common 30–60 years of age
 Sex: 90% female
 Genetics: shows a familial tendency
 Geography: more common in iodine-replete areas

Causes

Graves' disease*
 Toxic multinodular goitre
 Toxic adenoma
 Iodine induced
 TSH-secreting tumour

Neuropsychiatric

Irritability
 Psychosis

Nervous system

Hoarse voice
 Slow relaxing reflexes

Thyroid

Goitre
 Bruit*

Eyes

Exophthalmos
 Lidlag
 Conjunctival oedema
 Ophthalmoplegia

Cardiovascular

Cardiac failure
 Tachycardia
 Atrial fibrillation
 Systolic hypertension

Gut

Increased appetite
 Increased stool frequency
 Weight loss

Oligomenorrhoea

Proximal myopathy

Hands

Tremor, sweating
 Warm peripheries
 Palmar erythema
 Onycholysis
 Acropachy*

Pretibial myxoedema*

Investigations

Biochemistry—T₄ and T₃ raised
 Immunology—thyroid receptor antibodies titre raised
 Ultrasound + nuclear imaging help distinguish Graves' and adenoma
 Histopathology—small follicles and scant colloid in Graves'

Treatment options

Education—warn about drug side effects
 Drugs—carbimazole, propylthiouracil, propranolol
 Surgery—large goitre failed medical treatment
 I₁₃₁—indications vary depending on cause and course of disease; patient's age and sex

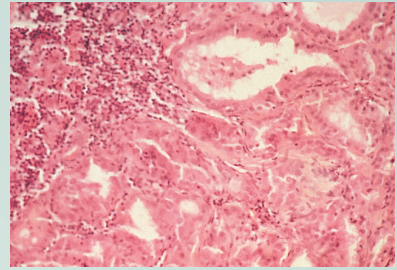


Fig. A Histological appearance of Graves' disease. The follicles are small and lined with hyperplastic columnar epithelium. Colloid within the lumen is sparse or absent. There is also infiltration of the gland with lymphocytes and plasma cells.

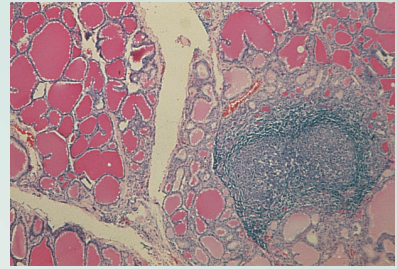


Fig. B After treatment with anti-thyroid drugs the follicles become larger and the lining epithelium flatter.



Fig. C Patients with Graves' disease appear thin, nervous, hyperactive and unable to sit still, often with a wide-eyed expression and symmetrical thyroid enlargement that moves on swallowing.