

Hypertension at a glance



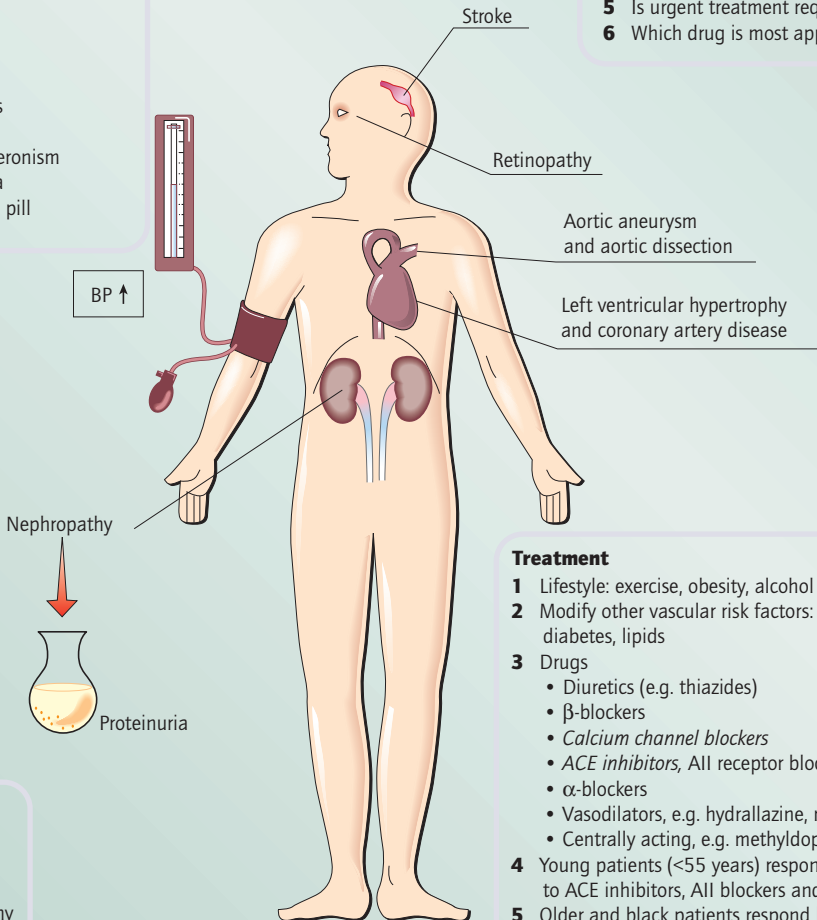
Fig. A Grade 4 hypertensive retinopathy with exudates, flame haemorrhages and papilloedema.

Background

- Affects 5–10% of western populations
- BP $\geq \frac{140}{90}$ mmHg on 3 separate occasions
- Can cause end organ damage
- Increases with:
 - Age
 - Obesity
 - Alcohol intake
- Secondary causes
 - Renal artery stenosis
 - Renal disease
 - Primary hyperaldosteronism
 - Pheochromocytoma
 - Drugs: contraceptive pill, steroids

Key questions

- 1 Is the patient truly hypertensive?
- 2 Is there end organ damage?
- 3 Is there a treatable cause?
- 4 Will lifestyle changes help?
- 5 Is urgent treatment required?
- 6 Which drug is most appropriate?



Basic investigations

- Electrolytes
- Urea, creatinine
- Lipids, glucose
- ECG \pm echocardiography
- Urinalysis

Treatment

- 1 Lifestyle: exercise, obesity, alcohol
- 2 Modify other vascular risk factors: smoking, diabetes, lipids
- 3 Drugs
 - Diuretics (e.g. thiazides)
 - β -blockers
 - *Calcium channel blockers*
 - *ACE inhibitors*, All receptor blockers
 - α -blockers
 - Vasodilators, e.g. hydralazine, minoxidil
 - Centrally acting, e.g. methyl dopa
- 4 Young patients (<55 years) respond better to ACE inhibitors, All blockers and β -blockers
- 5 Older and black patients respond better to calcium channel blockers and diuretics