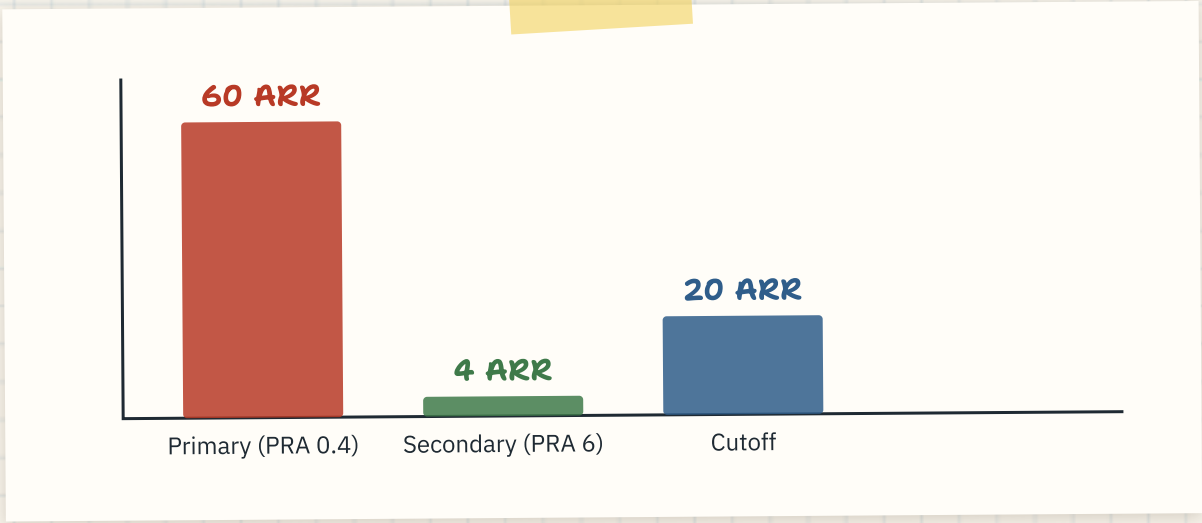
Primary hyperaldosteronism

High aldosterone, low renin



Step by step

1. Aldosterone is autonomous; volume expands.
2. Renin is switched off; oedema is uncommon.
3. Screen with aldosterone and renin together.
4. Confirm if needed, then CT and adrenal vein sampling.
5. One side: surgery. Both sides: spironolactone.

Cell	Action	Result
Principal	Sodium in	Hypertension
Principal	Potassium out	Hypokalaemia
Alpha intercalated	Hydrogen out	Metabolic alkalosis

Aldosterone in the collecting duct

ALDOSTERONE TO RENIN RATIO

`aldosterone (ng/dL) / PRA (ng/mL/h)`

Positive screen: aldosterone above 15 ng/dL, ratio above 20; cutoff depends on the assay.

Renin separates them

Aldosterone high, renin low: primary

Aldosterone high, renin high: secondary

Both low: non-aldosterone mineralocorticoid excess, such as licorice

Exam traps

- Hypokalaemia is not required; many patients have normal potassium.
- Aldosterone alone cannot separate primary from secondary; renin does.
- Bilateral hyperplasia is the more common cause, at about two thirds.

Primary hyperaldosteronism: high aldosterone, low renin

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/endocrinology/primary-hyperaldosteronism

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