Experience in the use of tolvaptan in elderly patients with significant hyponatraemia

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INTRODUCTION:

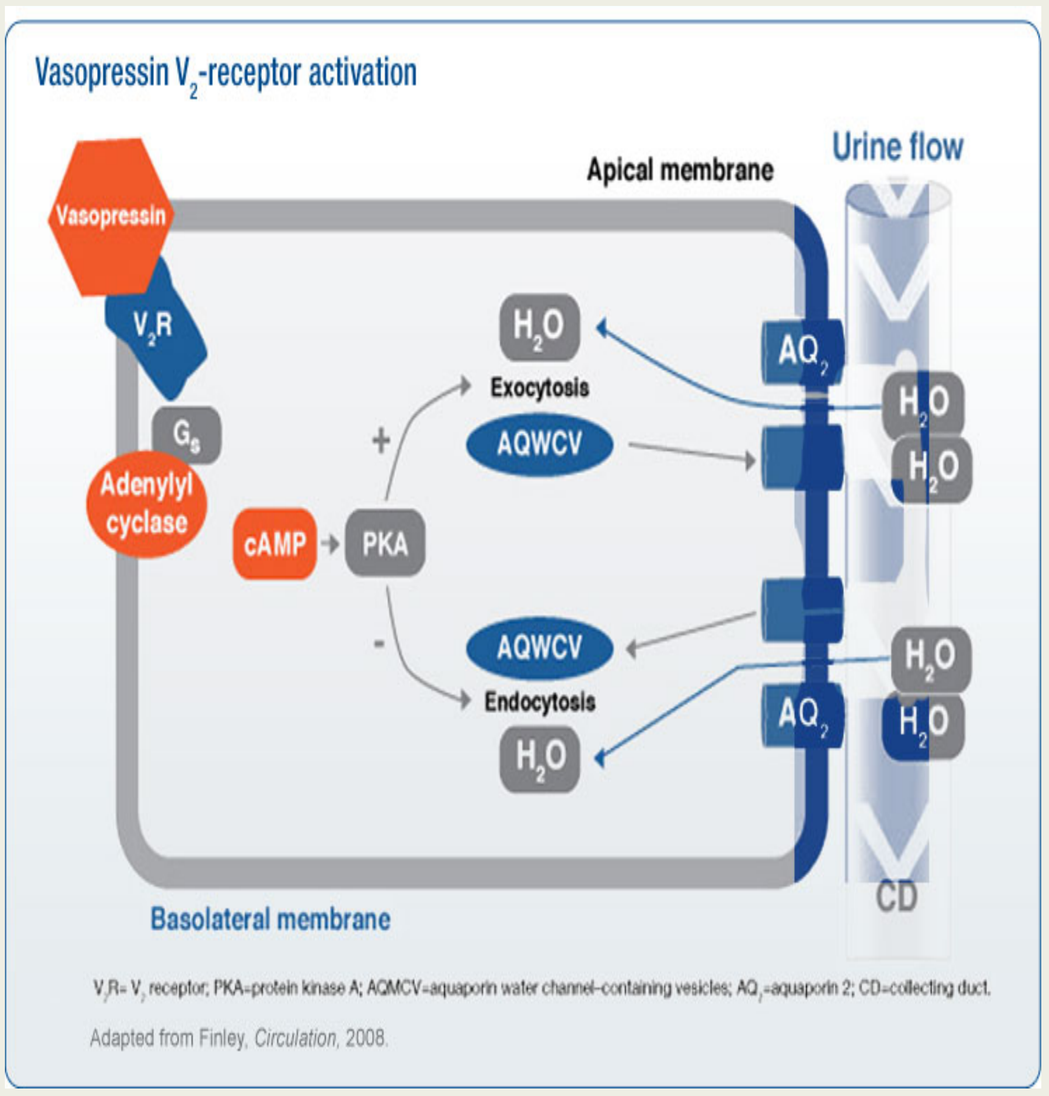
Tolvaptan is an oral vasopressin V_2 receptor antagonist which offers a novel treatment for euvolaemic and hypervolaemic hyponatraemia. Here we report our experience with Tolvaptan in elderly patients.

Case 1:

76-year-old lady with background of hypothyroidism, hypertension and alcohol excess presented with acute onset of confusion. Her admission Sodium [Na^+] level was 117 mmol/L and represented an acute drop from normal level after a thiazide diuretic was introduced two days earlier. Acute thyroid dysfunction and adrenal insufficiency were excluded. Despite stopping bendroflumethiazide, [Na^+] fell further to 108mmol/L 48 hrs later. Urinary spot [Na^+] was 29 mmol/L and urine osmolality 766 mOsm/kg in the context of euvolaemia. Following administration of 15mg of Tolvaptan, [Na^+] level rose to117 mmol/L on day one and 122mmol/L on day two. Tolvaptan was discontinued and hyponatraemia improved on fluid restriction only with [Na^+] level 132 mml/L 48 hours later.

Case 2:

91-year-old lady with known congestive cardiac failure and hypertension was admitted with a fall. She was known to have mild hyponatraemia, secondary to loop diuretic use. [Na^+] level fell rapidly from130 mmol/L to 115 mmol/L a week post admission and continued to decline despite withholding the diuretic and ACEi, fluid restriction and Demeclocycline use (300 mg 6 hourly). Plasma osmolality was low at 245 mOsm/kg with urine osmolality at 598 mOsm/kg. Thyroid dysfunction and hypocortisolaemia were excluded. Tolvaptan 15 mg was introduced at [Na^+] level of 106 mmol/L and resulted in gradual improvement in hyponatraemia with [Na^+] level at 111 mmol/L on day 1, 118 mmol/L on day 2 and 127 mmo/L on day 3 post Tolvaptan. The medication w as discontinued and [Na^+] level remained stable on fluid restriction.



CONCLUSION:

Tolvaptan is a safe and effective treatment of hyponatraemia in elderly population providing more prompt rise in serum sodium than fluid restriction and Demeclocycline.