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THE CHANGES OF PLASMA RENIN AND ALDOSTERONE LEVELS IN RESISTANT HYPERTENSION PATIENTS WITH OBSTRUCTIVE SLEEP APNOEA SYNDROME BEFORE AND AFTER CONTINUOUS POSITIVE AIRWAY PRESSURE THERAPY

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Objectives To investigate the changes of plasma renin and aldosterone levels before and after continuous positive airway pressure (CPAP) therapy in resistant hypertension patients with obstructive sleep apnoea syndrome.

Methods The randomised controlled trials were retrieved from the databases MEDLINE, EMBASE, BIOSIS Previews and CNKI up to June 2011. In total 3 studies and 33 patients were selected. The selected research studies were analysed using the statistical software Revman 5.1.

Results The changes of plasma renin levels before and after CPAP therapy showed no significant difference (Std. Mean Difference = -0.85 , 95% CI -2.02 to 0.32], $p=0.15$). The changes of plasma aldosterone levels before and after CPAP therapy also showed no significant difference (Std. Mean Difference= 0.05 , 95% CI -2.46 to 2.56 , $p=0.97$).

Conclusions There were no significant changes of plasma renin and aldosterone levels before and after CPAP therapy in resistant hypertension patients with obstructive sleep apnoea syndrome.