

**Acid-base balance of renal venous blood with patients in secondary hypertension****Vladimir Voitovitch***Belarusian Centre of Cardiology, 4th City Hospital, Minsk, Belarus*

**Background and Aims:** Accessing the literature did not reveal any data regarding the state of Acid-Base Balance (ABB) in Renal Venous Blood (RVB). During study of differential diagnostic arterial hypertension, plasma renin activity and other renal hormones we simultaneously investigated ABB of RVB in patients with secondary hypertension. The aim of this study was to explore the level of renal ischemia in patients with different lesions of the kidney and renal artery accompanied with arterial hypertension by determination of ABB in RVB.

**Methods:** 44 patients with different kinds of renal artery (RAL) and small kidney lesions (SKL) and 18 with polycystic kidney disease (PKD) have been studied by measuring pO<sub>2</sub>, SO<sub>2</sub>%, pCO<sub>2</sub>, pH, BE, BB, HCO<sub>3</sub>, TCO<sub>2</sub> in abdominal aortas and RVB.

**Results:** Abdominal aortas-pO<sub>2</sub>:97.7±3.9;SO<sub>2</sub>%;97.2±3.5;pCO<sub>2</sub>:34.97±1.78

RVB of RAL - pO<sub>2</sub>:62.5±4.3;SO<sub>2</sub>%;90.1±1.8;pCO<sub>2</sub>:35.11± 0.96

RVB of RAL (opposite side) - pO<sub>2</sub>:65.0±3.4;SO<sub>2</sub>%;91.2±0.95;pCO<sub>2</sub>:34.95±0.72

RVB of SKL - pO<sub>2</sub>:70.4±4.9;SO<sub>2</sub>%;91.8±0.8;pCO<sub>2</sub>:39.2±1.99

RVB of SKL (opposite side) - pO<sub>2</sub>:81.6±6.4;SO<sub>2</sub>%;95.0±1.3;pCO<sub>2</sub>:34.95±0.72

RVB of PKD (right side) - pO<sub>2</sub>:57.9±2.8;SO<sub>2</sub>%;89.2±2.5;pCO<sub>2</sub>:33.7 ±1.51

RVB of PKD (left side) - pO<sub>2</sub>:59.4±3.8;SO<sub>2</sub>%;90.2±1.9;pCO<sub>2</sub>:32.63±1.71

**Conclusions:** The obtained results have shown that the essential data in ABB in RVB in patients with secondary hypertension is very stable and there is a statistically non-significant difference between lesion and opposite side RVB in RAL and SKL. Furthermore, only in patients with PKD are levels of pO<sub>2</sub> and pCO<sub>2</sub> in RVB statistically lower than other groups. The remaining data of ABB in patients with secondary hypertension is statistically no different to normal levels and confirms stable ABB in RVB even in patients with PKD.

**Biography**

Voitovitch Vladimir graduated Clinical ordination on Nephrology in Centre of Urology and Kidney Transplant action in Minsk under Academic Savchenko N. E. As scientific worker defended dissertation "State of Pressor -Depresser system in patients with renal symptomatic hypertension". In 2008 worked in Bergamo 6 months on Program ISN "Early diagnostic patients with Hypertension, Diabetes, and Renal diseases. More than 70 published, participated in World Congress of Nephrology in San Francisco (2001), Toronto (2003), Rio de Janeiro, Hon Kong et all.

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