

**Results:** Patients affected by congestive heart failure (CHF) have high plasmatic levels of Arginine vasopressin even though they are hypervolemic with lower plasma osmolarity and serum sodium levels and this happens because of the lower effective of arterial blood volume, decreased cardiac output and Angiotensin II-induced AVP release. Arginine vasopressin exerts adverse effects in CHF by increasing vascular peripheral resistance via V1a Receptors and by enhancing water retention through V2 Receptors from renal collecting tubules. Furthermore, sustained stimulation of V1aR in the heart can lead to remodeling by stimulating cell hypertrophy and further deteriorates cardiac function. Therefore, blockade of the AVP system may prove as a useful adjunct or alternative to standard therapy in CHF. Currently there are 4 major compounds which are AVP-antagonists, 3 of them are selective antagonists of V2R: Tolvaptan, Satavaptan and Lixivaptan and 1 is a nonselective antagonist of V1aR and V2R: Conivaptan. Only Conivaptan and Tolvaptan are approved by FDA, the first one for treating hypervolemic and euvolemic hyponatremia and the second one for the treatment of CHF, liver cirrhosis and SIADH (syndrome of inappropriate antidiuretic hormone secretion).

**Conclusion:** According to the results of the clinical trials that were mentioned above, this new class of medicines is efficient in short-term regulation of hyponatremia and hypervolemia in congestive heart failure and may be used as an alternative for patients with resistance to diuretics. Long-term efficiency wasn't demonstrated and there are many questions that have to be elucidated regarding to this class of drugs.

**Keywords:** Arginine vasopressin, vaptans, congestive heart failure.

## 6. MICROSCOPIC CHANGES IN BLOOD CAPILLARIES IN HEMORRHAGIC VASCULITIS AND THE CORRELATION WITH THE DEGREE OF EXPRESSION OF IMMUNE REACTIONS

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**Introduction:** Henoch-Schoenlein Purpura is the most frequent vasculitis in pediatric patients usually with a self-limiting evolution. Still the evolution of the disease is hardly predictable with a possibility to acquire a severe clinical form. This paper had the goal to highlight the possible correlation between the severity of the degree of the histopathological lesions and the expression of markers of endothelial status and cellular and humoral immune status. Other researches with similar purpose were performed, but the analysis of the literature has shown that the results are contradictory.

**Materials and Methods:** To reach the goal, we have performed histopathological diagnosis and analysis of skin biopsies and we have evaluated the endothelial status, cellular immune status and humoral immune status.

**Results:** We founded a significant correlation between the degree of implication of microcirculation and the level of markers of the endothelial status.

**Conclusions:** The markers of the endothelial activation can be an alternative method in evaluation of the severity of disease and therefore of the therapeutical strategy, still more researches are necessary.

**Keywords:** Henoch-Schonlein Purpura, histopathology, endothelial markers, VCAM, ECAM.

## 7. METABOLIC CHANGES IN POLYCYSTIC OVARIAN SYNDROME

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**Introduction:** Polycystic ovary syndrome (PCOS) is a heterogeneous multifactorial disease characterized by menstrual disorders, chronic anovulation, hyperandrogenism, cystic changes in the ovaries and infertility. The syndrome is a condition with prepubertal onset, affecting especially women of childbearing age.