

ELECTROMOTIVE DRUG ADMINISTRATION (EMDA) OF PENTOSAN POLYSULFATE (PPS) IN THE THERAPY OF INTERSTITIAL CYSTITIS (IC)

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INTRODUCTION & OBJECTIVES: Conservative treatment of interstitial cystitis is still a difficult and unsatisfying task. There are many hypothesis about the pathophysiology of IC. Believing in the pathogenesis-model of an incomplete Glycosaminoglycan (GAG) barrier, we treated 32 IC patients with PPS under electromotive drug administration to re-establish normal GAG layer function. **MATERIAL & METHODS:** Thirty two patients with IC based on NIH symptom criteria and additional tissue biopsies were enrolled in this study. Moreover, any patient with a functional bladder capacity under 100 ml was excluded. All patients received a solution of dexamethasone, lidocaine and epinephrine to achieve analgesia over 20 minutes and under positive voltage (20 mA). After washing out, a solution of 200 mg% PPS was applied to replenish the damaged GAG layers under negative voltage (20 mA). The procedure was repeated after 14 days. Quality of life scores, pain and voiding indices were measured baseline and at the final visit, using the "O` Leary-Sant symptom and problem index".

RESULTS: 23/32 (72%) patients responded with improvement of symptoms. 4/32 (12.5%) needed a third bladder instillation to achieve a significant reduction in the symptom score. 5/32 (15.5%) showed no response or withdrew from the study. The mean effect lasted 4 months. The treatment was well tolerated. No mechanical bladder distension was performed. However, the functional bladder capacity increased between 30-50%. Complications included one thermal urethritis and one skin burn in the location of the electrode. But these sight effects were of transient nature.

CONCLUSIONS: Bladder instillation in conjunction with electromotive drug administration of PPS seems to be a very effective and at least partially causal therapy of IC.