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Title: ASSESSMENT OF POTASSIUM CHLORIDE TEST IN COMPARISON WITH SYMPTOMATOLOGY, CYSTOSCOPIC FINDINGS AND BLADDER BIOPSY IN THE DIAGNOSIS OF INTERSTITIAL CYSTITIS

Aims of Study:

To evaluate the correlation between the potassium chloride (KCl) test and other commonly used diagnostic parameters for interstitial cystitis: symptomatology, cystoscopic findings, and biopsy.

Methods:

23 patients referred for non-infectious cystalgia and irritative symptoms were evaluated using the standardized KCl test⁽¹⁾, the Interstitial Cystitis Symptom and Problem Indices (ICSI/ICPI)⁽²⁾, cystoscopy under general anesthesia and cold cup biopsy. The association between these parameters was analyzed using Spearman's correlation (SC). During statistical analysis, each patient's sensations of pain and urgency during KCl instillation was adjusted to take into account their response to water instillation. This adjustment allows for more accurate reflection of the effects of the KCl solution.

Results:

All 23 patients were women, mean age 46.2 years old (SD 14.6). 21 patients felt that the KCl solution was worse than water. The mean total score was 13.5 (SD 3.5) and 11.6 (SD 2.8) for ICSI and ICPI, respectively. Difference in sensation between KCl solution and water was not correlated with the individual questions or the total score of ICSI/ICPI. Patients with more severe adjusted urgency on KCl scored lower on question 3 of ICSI (SC -0.56, p=0.01), question 2 of ICPI (SC -0.5; p=0.02), and the total score of ICPI (SC -0.48, p=0.03). The mean maximum bladder capacity during cystoscopy under general anesthesia was 581.7cc (SD 191.1). An increase in the adjusted feeling of pain on KCl was associated with a greater maximum bladder capacity (SC 0.51;p=0.02). Results of KCl test showed no correlation with the features of lamina propria, such as edema (p=0.87), vascular ectasia (p=0.92), lymphoplasmacytic inflammation (p=0.94) or fibrosis (p=0.64).

Conclusions:

This study did not demonstrate any correlation between the KCl test and other parameters that would help in the diagnosis of interstitial cystitis. Hence we are questioning the usefulness of the KCl test as a diagnostic tool for interstitial cystitis.

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1: Parsons CL. Potassium sensitivity test. *Tech Urol* 1996 Fall 2(3): 171-3.

2: O'Leary MP, Sant GR, Fowler FJ Jr, Whitmore KE, Spolarich-Kroll J. The interstitial cystitis symptom

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