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Title: THE RELATIONSHIP BETWEEN CYSTOSCOPIC FINDINGS, HISTOPATHOLOGY AND SELF-REPORTED SYMPTOMATOLOGY IN PATIENTS WITH INTERSTITIAL CYSTITIS

Aims of Study:

The etiology of interstitial cystitis (IC) has yet to be elucidated, but bladder inflammation has been long thought to be a key component. Current NIH diagnosic guidelines are based on irritative voiding symptoms in conjunction with a lack of other identifiable pathology. However, research has not concluded how inflammation relates to specific IC symptomatology. We compared symptomatology with cystoscopic and histologic findings in IC patients.

Methods:

Twenty-one female IC patients (NIDDK criteria) completed demographic and symptom questionnaires prior to cystoscopy, hydrodistention and bladder biopsy under anesthesia. Operative reports were reviewed by a blinded investigator (KJK). Histopathology was reviewed by a blinded uropathologist, for the type and severity of inflammation, ulceration and edema (MBC).

Results:

Participants' mean age was 47.1 (SD=17.3, range 22 to 81). Intercorrelations between cytoscopic measures indicated statistically significant, positive correlations between acute and chronic inflammation, and ulceration (all p values <0.05). In addition, decreased bladder capacity was associated with more severe glomerulations ($p<0.05$). Age was significantly related to both chronic inflammation and ulceration ($r=0.46$; $r=0.52$; $p<0.05$) and urinary frequency ($r=0.51$, $p<0.05$). Patients with either a smaller bladder capacity or more glomerulations reported greater relief of pain with voiding ($r=0.46$; $r=0.48$; $p<0.05$). Presence of terminal hematuria was related to greater pain in the urethra ($\chi^2(1, n=20) = 5.00$, $p<0.05$).

Conclusions:

In IC patients, increasing age correlates with greater urinary frequency, inflammation and ulceration, suggesting that the severity of IC increases with age and/or the disease progresses with age. Some evidence suggests that specific bladder physiology is associated with particular IC symptoms. However, the majority of cystoscopic findings observed at hydrodistention and histopathology are not predictive of self-reported symptomatology in IC patients.

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