

INTERSTITIAL CYSTITIS ASSOCIATED WITH SJÖGREN'S SYNDROME

Hypothesis / aims of study

Pathogenesis of Interstitial Cystitis (IC) is unknown, however, autoimmunity is thought to be one of the possible pathogenesis. Sjögren's syndrome (SS) is one of the autoimmune disease which is known to have strong association with IC. We evaluated clinical and pathological feature of IC associated with SS.

Study design, materials and methods

Seven IC patients with SS were evaluated. Patients' diagnosis of IC and SS were compatible for diagnostic criteria. Patients' condition were assessed with O'Leary and Sants' symptom index/ problem index (OSSI/OSPI), visual analogue scale for pain, frequency volume chart data, and their bladder histology were assessed by cystoscopic findings at hydrodistension and microscopic findings with HE staining and immunohistology with CD4 and CD8 antibody.

Results

All IC patients with SS were female, aged 66.0 on average. OSSI, OSPI, VAS scored 13.7, 13.2, 8.2 points respectively. They voided 104ml, 18.1times per day on average respectively. These clinical features were quite similar to those of IC without SS. At hydrodistension, diffuse edema and erosion of the bladder mucosa was observed while in IC without SS these findings were usually localized. There was no correlation between severity of SS and severity of IC.

Microscopic findings revealed diffuse infiltration of lymphocytes to the interstitial layer of the bladder with edema and angiogenesis. However, unlike IC without SS, CD4 positive T cells which plays major law in pathogenesis of SS were significantly increased (Figure 1., Figure 2.).

Interpretation of results

IC with SS patients had similar clinical features with those without SS, however, severity of SS did not correlated with severity of IC.

On microscopic findings, increased number of CD4 positive T cells were observed in IC with SS bladder mucosa. The fact suggests CD4 positive T cells may playing a major law in pathogenesis of IC with SS as well as SS itself.

Concluding message

Histological findings suggests CD4 positive T cells playing important law in pathogenesis of IC associated with SS.

	mean (range)	
	IC with SS (n=7)	IC without SS (n=200)
Age at onset	66.0 (42-82)	53.4 (13-82)
OSSI	13.7 (8-19)	14.0 (5-20)
OSPI	13.2 (8-16)	12.0 (3-16)
VAS	8.2 (5-10)	7.5 (2-10)
Urinary frequency (/day)	18.2 (10-30)	17.4 (8-52)
voided volume (mL)	104.1 (25-200)	106.6 (33-257)
distended volume (mL, under anesthesia)	440 (350-800)	573 (150-1000)
number of CD4+ T Cells (/HPF)	12.5 (3-30)	0.5 (0-3)

Figure 1.
CD4 immunostaining (IC with SS) x200

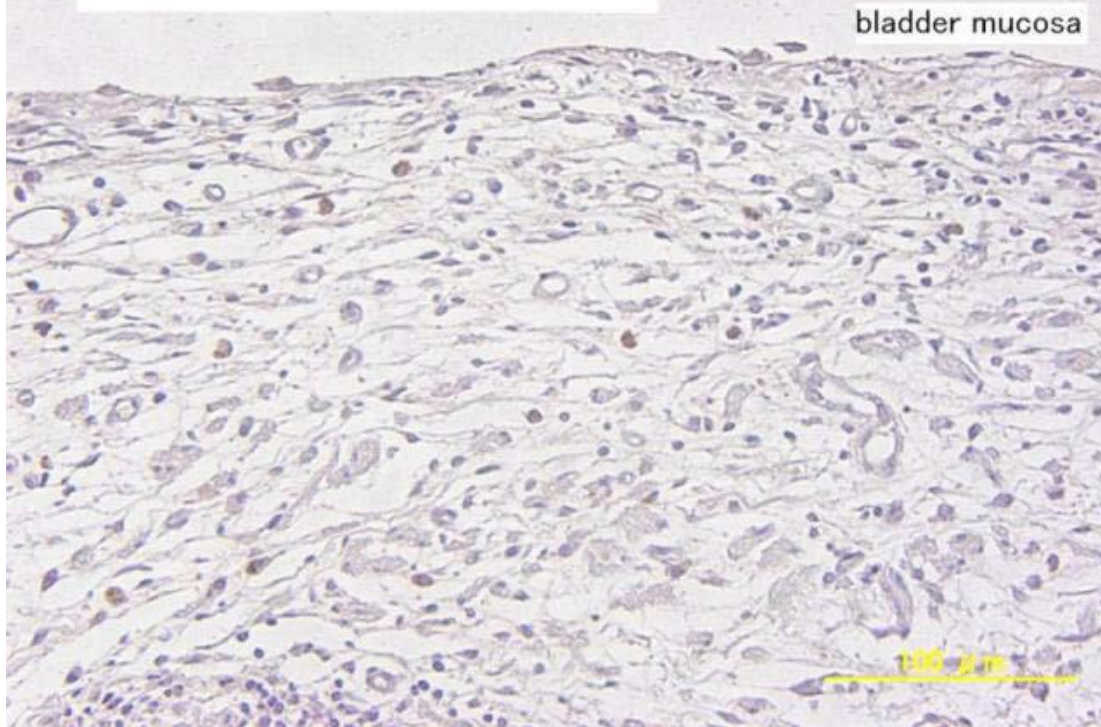
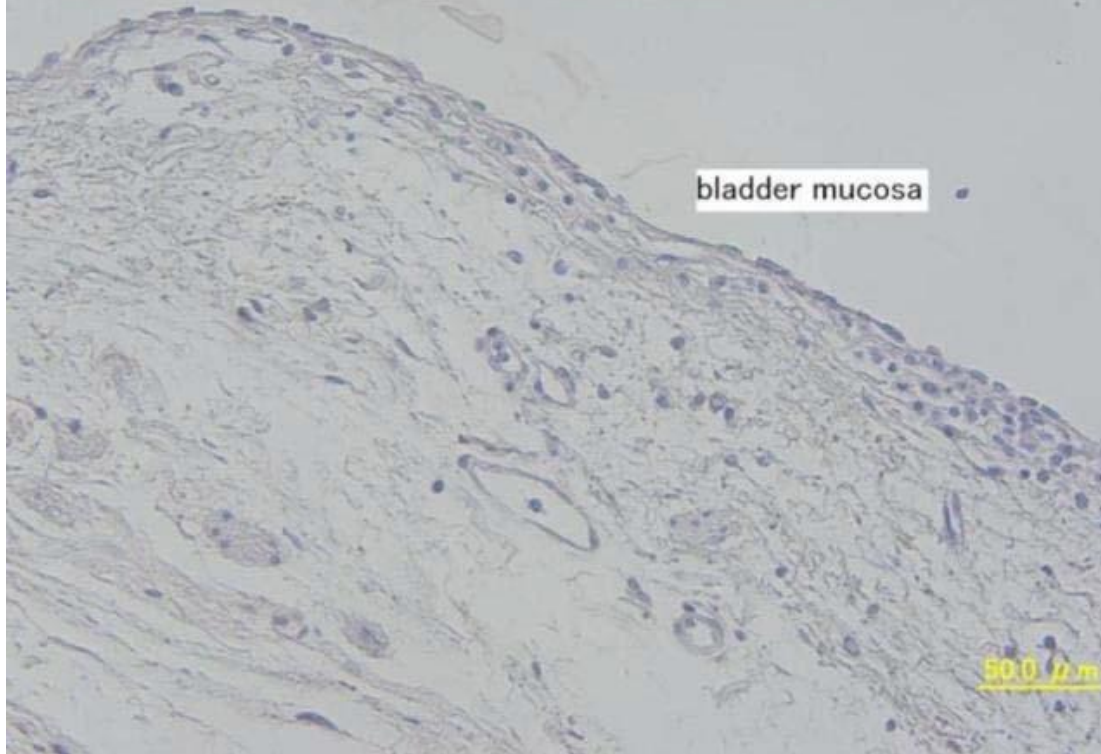


Figure 2. CD4 immunostaining (IC without SS) x200



Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** University of Tokyo hospital Ethics committee
Helsinki: Yes **Informed Consent:** Yes