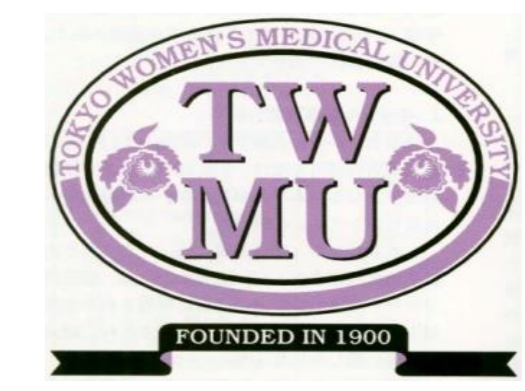


# IN WHAT TYPE OF INTERSTITIAL CYSTITIS/BLADDER PAIN SYNDROME IS DMSO INTRAVESICAL INSTILLATION THERAPY EFFECTIVE?

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## Background and Aims

- The etiology of interstitial cystitis (IC)/bladder pain syndrome (BPS) is unclear, and there is no definitive method of treatment. There are two types of IC/BPS, i.e., IC/BPS with Hunner's lesions and IC/BPS with glomerulation alone. IC/BPS with Hunner's lesions is thought to be an independent disease, and IC/BPS with glomerulation alone is thought to have many phenotypes.
- Hydrodistension followed by transurethral resection (TUR) and fulguration is known to be an effective means of treating Hunner's lesions<sup>1</sup>.
- The recommendation level of intravesical instillation of dimethylsulfoxide (DMSO) as a method of intravesical instillation therapy is high, but which type of IC/BPS it is effective against has been rarely reported<sup>2</sup>.
- We evaluated which type of IC/BPS DMSO intravesical instillation is effective.

## Materials and Methods

- H group (n = 14): IC/BPS with Hunner's lesions
- non-H group (n = 14): IC/BPS without Hunner's lesions
- Control group (n = 14): Hydrodistension only
- DMSO group (n = 14): Hydrodistension with intravesical DMSO ※  
※Hydrodistension had been immediately followed by intravesical instillation of 50%DMSO 50 ml once a week for a total of 8 times, once every 2 weeks for a total of 8 times, and once every 4 weeks thereafter.
- Both Control group and DMSO group were consisted of an H group of 7 cases and an non-H group of 7 cases

## Examinations

- Before, and 2, 6, 12, 18, and 24 months (M) after the intervention
- a 4-day frequency-volume chart (FVC)
- the O'Leary-Sant IC Symptom Index (ICSI) questionnaire and IC Problem Index (ICPI) questionnaire
- Pain on a visual analog scale (VAS)

## Results

Fig. 1 AVV/MVV in DMSO group vs Control group

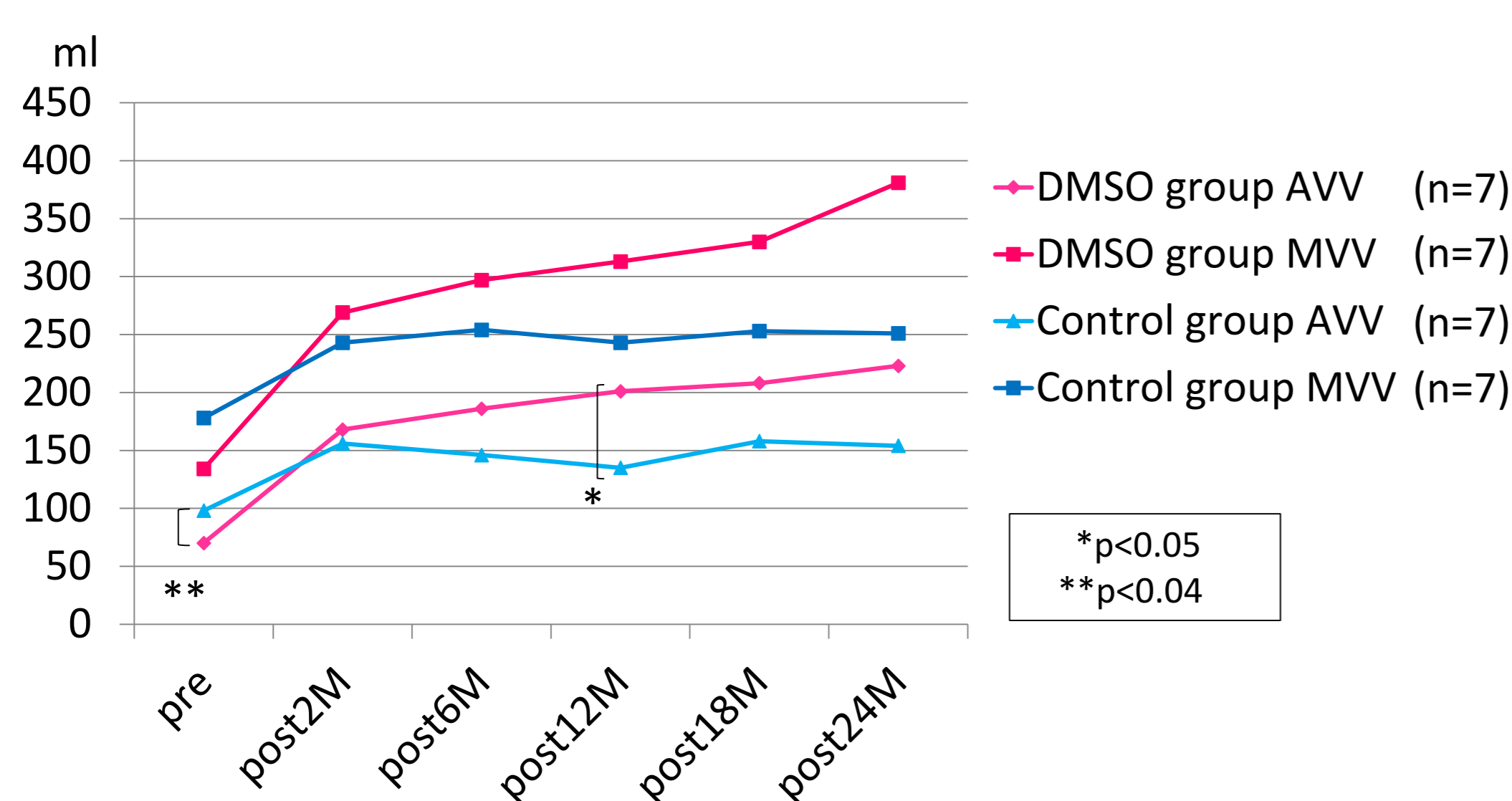


Fig. 2 AVV/MVV in DMSO group vs Control group

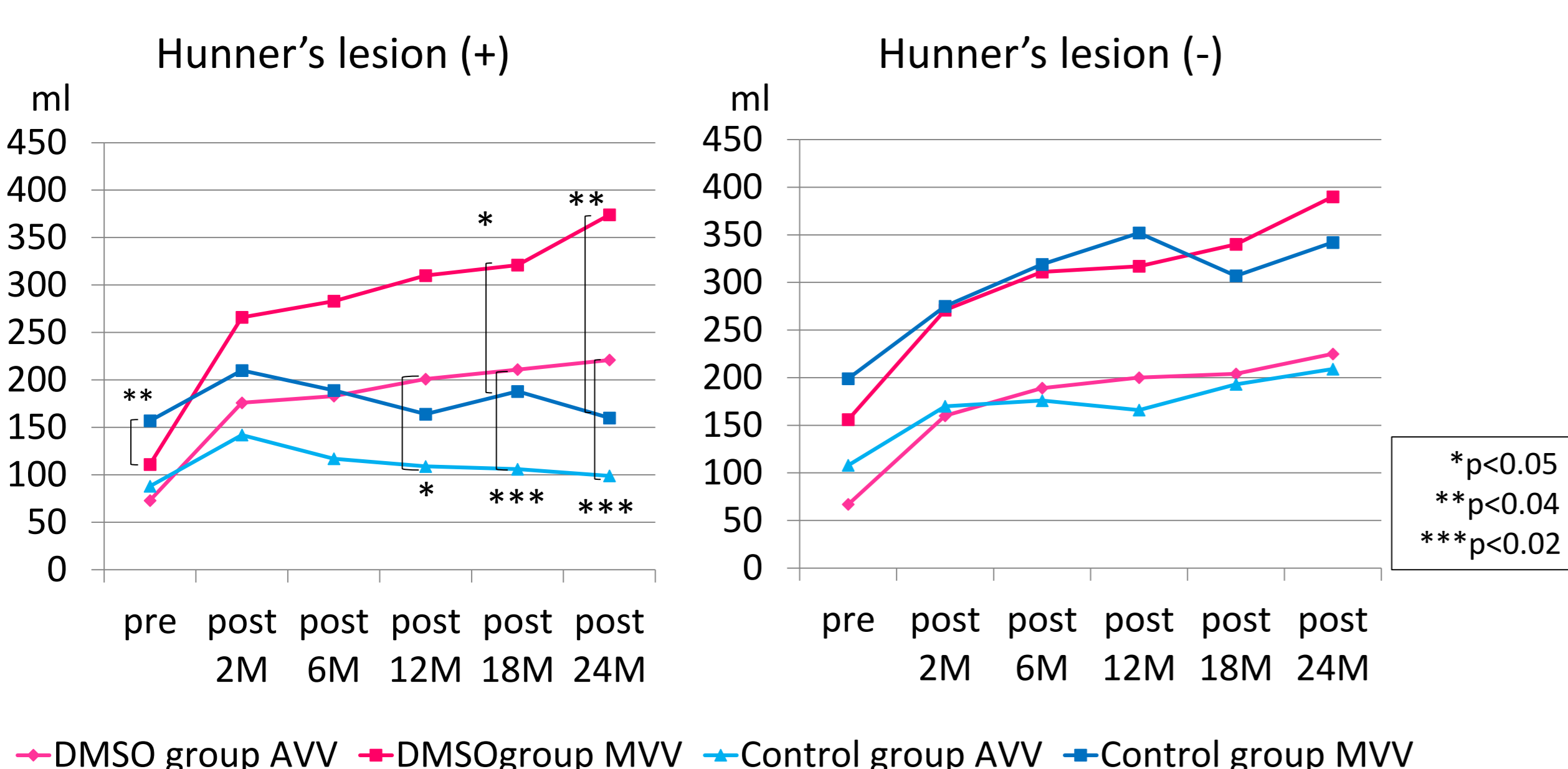


Fig. 3 ICSI/ICPI in DMSO group vs Control group

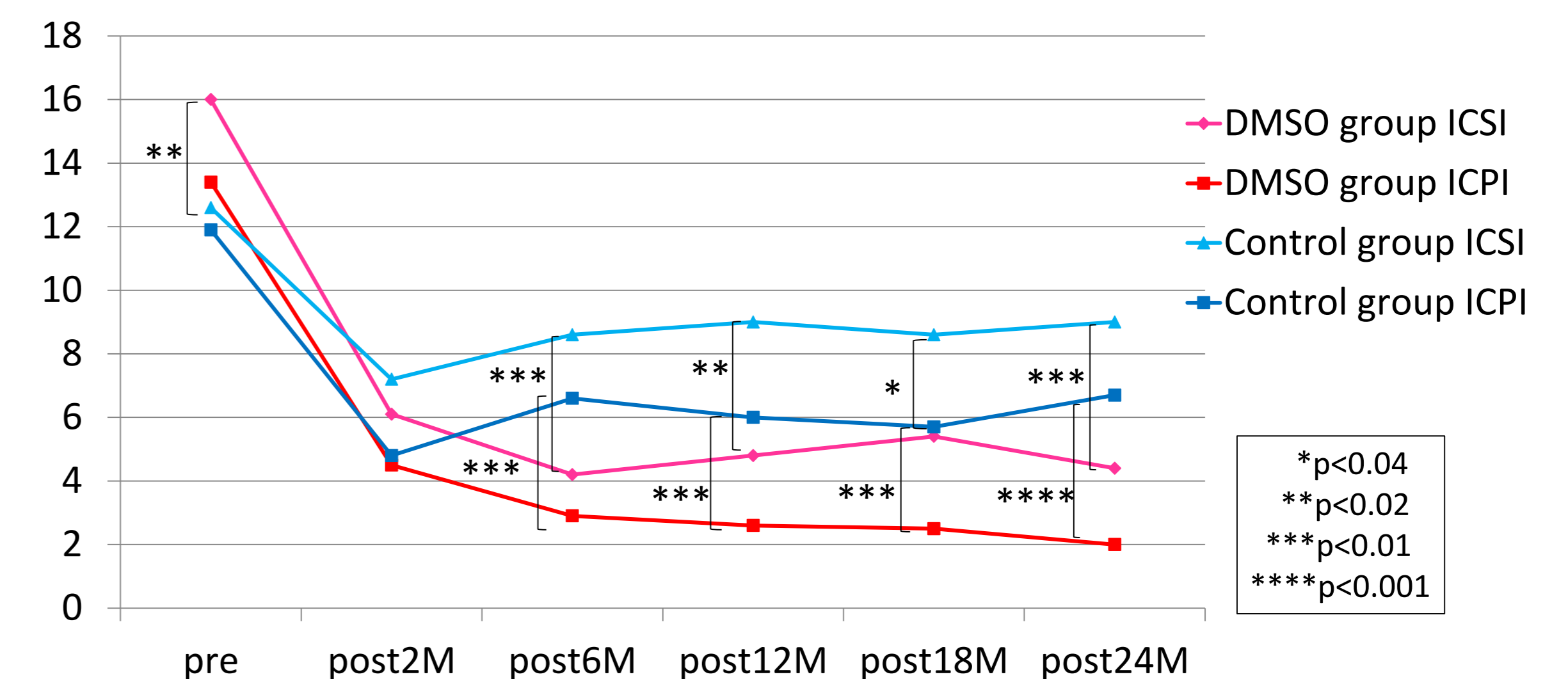


Fig. 4 ICSI/ICPI in DMSO group vs Control group

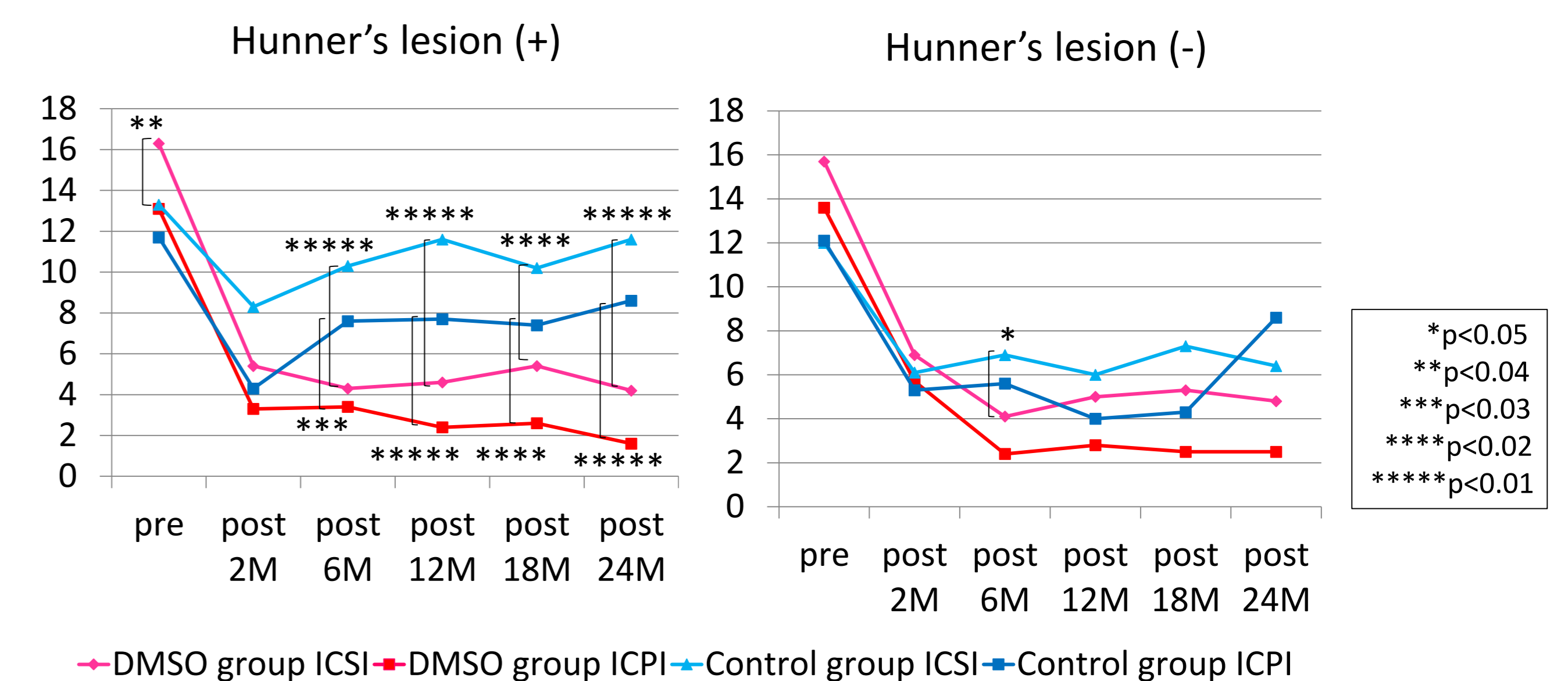


Fig. 5 VAS for Pain in DMSO group vs Control group

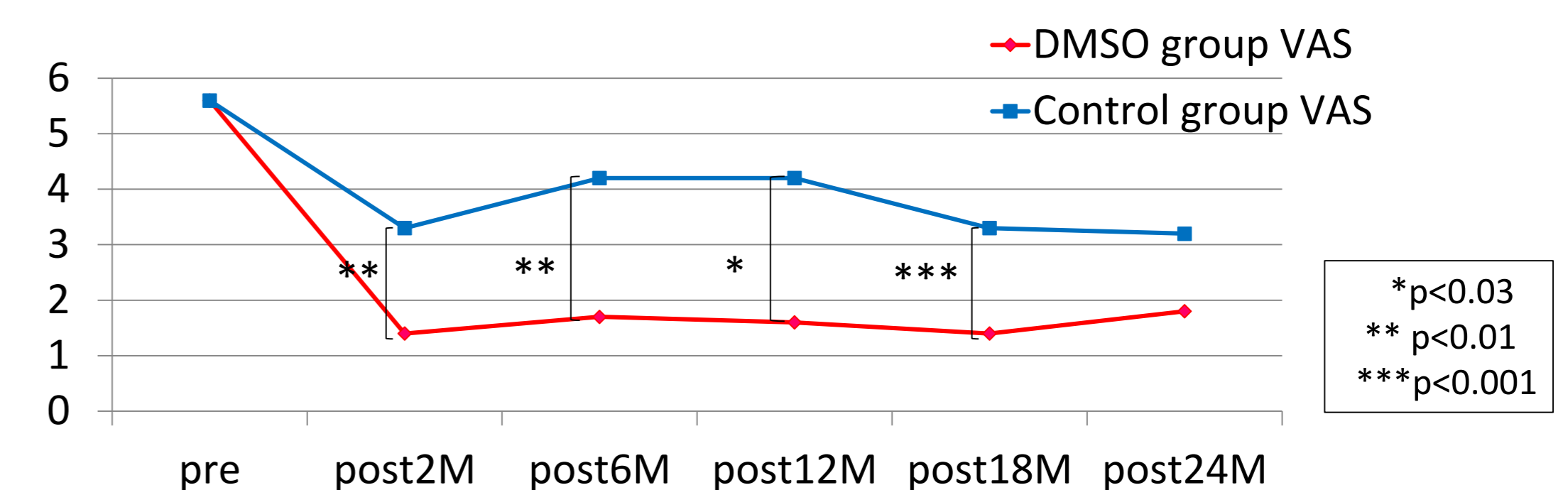
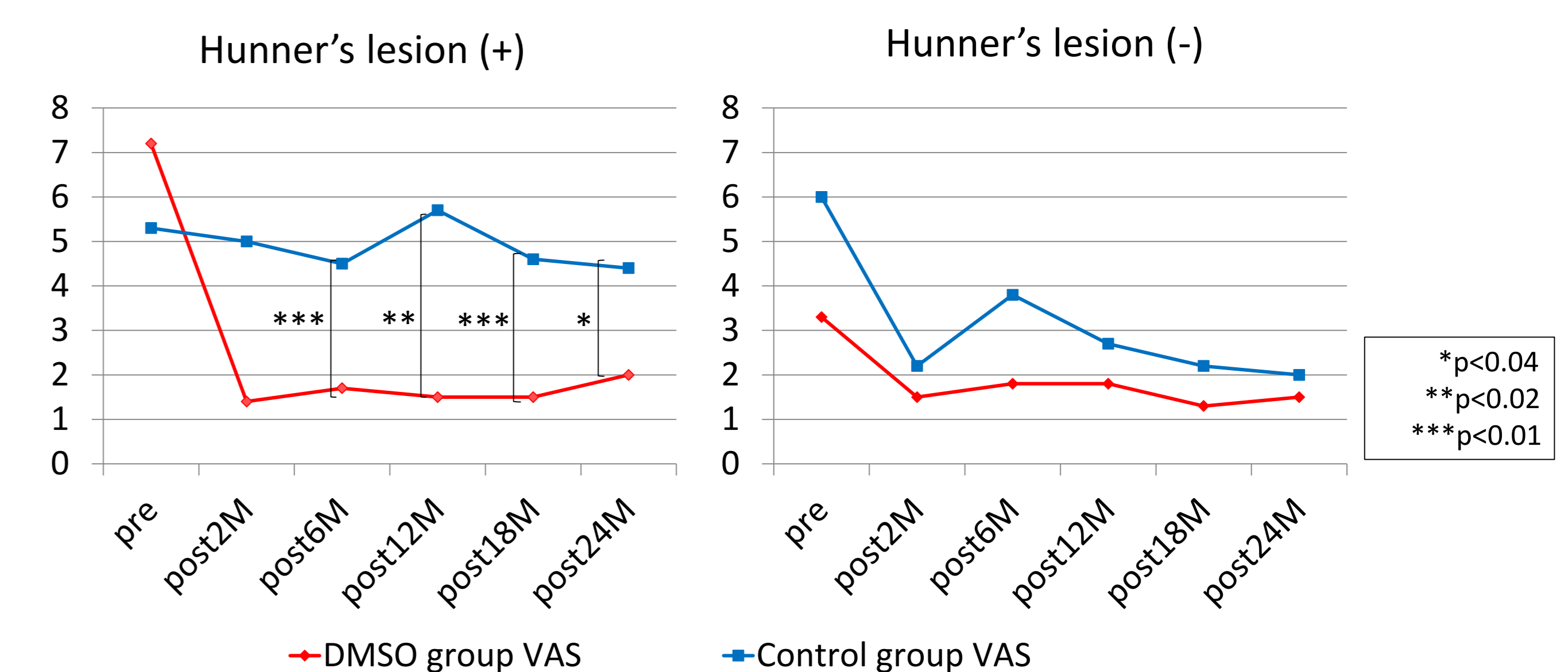


Fig. 6 VAS for Pain DMSO group vs Control group



## Interpretation of results

- Bladder volume increased after the hydrodistension in both DMSO and Control group.
- Both AVV and MVV in H group was significantly higher in DMSO group after 18M hydrodistension.
- The ICSI, ICPI, and VAS scores in H group were significantly lower in the DMSO group.
- There were no significant differences in AVV, MVV, ICSI, ICPI and VAS of non H group between DMSO group and Control group.

## Conclusions

DMSO intravesical instillation therapy have efficacy in the treatment of IC/BPS with Hunner's lesions.

## Limitations of this study

- A retrospective study
- The small number of cases
- There is no conflict of interest.
- There is not the profit reciprocity with the medical company which should do disclosure.