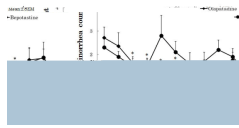




parameters, bepotastine besilate and olopatadine hydrochloride, for

O, it was significantly lower from day 2 onwards, and this symptom was well suppressed for the following 10 days (Figure 3).



**Figure 3** Changes of the mean nose blowing count throughout the study. Especially in group O, it was well suppressed.

\* $p < 0.05$  Group O vs before administration

\*\* $p < 0.01$  Group O vs before administration

# $p < 0.05$  Group B vs before administration

### 3) Nasal congestion

The mean nasal congestion scores using a 5-point scale before the study were  $1.70 \pm 0.26$  in group B and  $1.86 \pm 0.21$  in group O. In both groups, a significant change in the nasal congestion score was not observed throughout the study (Figure 4).



**Figure 4** Changes of the mean nasal congestion score throughout the study

In comparison with other scores, a significant change was not observed in both groups.

\* $p < 0.05$  Group O vs before administration

studies have demonstrated the usefulness of PNIF [12-14]. In the present study, we used a portable inspiratory flow meter (In-check™) originally used for the management of bronchial asthma. Using the facemask attached to this device, it can be adapted for the evaluation of nasal congestion. PNIF can be used to evaluate nasal congestion objectively and is useful for the self-evaluation of nasal

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