

Statistical analysis. Study power calculation was based on results of a previous study¹² in which pain VAS score change of 2 cm was considered a clinically relevant change. In a 2-arm, 2-sided study design with a clinical difference (Δ) = 2 and a test level (α) = 5%, an 80% power to detect a difference on VAS of 2 required 23 patients in each arm. The intention-to-treat population is the only analysis population. Pre and post-treatment scores for pain VAS and myalgic score were compared using the Student t test. ANOVA was used to examine change in pain or degree of tenderness (myalgic score change) with FM symptom duration (years) and age as covariables.

RESULTS

Thirty patients were enrolled into the valacyclovir (V group) and 30 into the placebo (P) group. There were no significant differences in characteristics at baseline (Table 1). No patient had clinical evidence of ongoing herpes or other viral infection (data not shown). Twenty-six patients in each group completed the study. Dropouts were due to adverse events, one headache, one vomiting in each group, one depression, one constipation, one family reasons, and one no reason given. Overall incidence of drug related adverse events was 6 in the V group and 8 placebo. Headache was most frequent in the V group, 5 events.

Pain VAS. There was no significant change before and after treatment ($p = 0.45$; Table 2). Including age and onset of symptoms as covariates gave a similar result ($p = 0.64$). The mean difference (improvement) was 0.16 in V group and 0.54 in P group.

Myalgic score. There was no significant change before and after treatment ($p = 0.58$; Table 2). Including age and onset of symptoms as covariates gave a similar result ($p = 0.84$). The mean difference (improvement) was 2.3 in V group and 3.5 in P group.

FIQ. There was no significant change in either total scores or subscale scores within or between groups (data not shown).

Table 1. Baseline characteristics of patients in the valacyclovir and placebo groups. Values are mean (SD). Herpes simplex virus (HSV) and human herpesvirus-6 (HHV-6): number with positive titers, i.e., patients with previous HSV or HHV-6 infection.

	Valacyclovir	Placebo
Female:male	28:2	30:0
Age, yrs	48.9 \pm 7.0	50.2 \pm 7.8
Height, cm	166.4 \pm 8.1	164.0 \pm 7.2
Weight, kg	71.6 \pm 20.2	71.1 \pm 15.3
FM diagnosis, yrs	2.4 \pm 2.5	2.8 \pm 2.6
FM symptom onset, yrs	10.3 \pm 6.4	11.2 \pm 7.0
HSV	26	25
HHV-6	28	28

Table 2. Pain and tenderness values pre and post-treatment. Values are mean (SD).

	Valacyclovir		Placebo	
	Pre	Post	Pre	Post
Pain, cm, VAS	7.9 \pm 1.7	7.0 \pm 2.3	7.8 \pm 2.2	7.0 \pm 2.3
Myalgic score	33.6 \pm 5.4	31.7 \pm 5.8	35.4 \pm 6.6	32.4 \pm 8.5

DISCUSSION

This study observed no effect difference between valacyclovir and placebo on overall pain intensity and global tenderness to moderate pressure in patients with FM not having current herpes infection. Study power was adequate to detect clinically significant changes in pain and tenderness and the dosage of valacyclovir was appropriate, and known to have clinical effect in herpes zoster infections¹³.

However, we cannot exclude that valacyclovir might have an effect in patients with current viral infection and FM symptoms.

Immunological differences have been observed in a selected group of patients with a flu-like onset of FM³ compared to those with acute onset. The FM diagnosis is presently based on case history and an objective examination¹. Laboratory diagnosis verification in peripheral blood has not been found¹⁴. Future research in fibromyalgia may be directed toward distinguishing between patients with different immunological backgrounds.

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