

Acyclovir

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The Effect of Acyclovir in Acute Stage of Bell's Palsy

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- Abstract -

Background : Bell's palsy(BP) is defined as an idiopathic peripheral facial paralysis of sudden onset and account more than 50% of facial paralysis. It's etiology is unclear, but herpes simplex virus type-1(HSV-1) has been the most suspicious causative agent of BP that ever been studied. We evaluated the effect of add-on acyclovir in acute stage of BP.

Methods : Subject consisted of 35 patients who developed acute idiopathic unilateral facial nerve palsy(16 men and 19 women with age 9-78 years old). The treatments were started within 10 days after onset of BP. Facial nerve function was assessed by the House-Brackman facial nerve grading scale and facial nerve conduction study including blink reflex. Follow-up evaluation were made 2 month after onset. Twenty of 35 patients were treated with combined therapy of acyclovir and prednisone. As a control group, 15 patients were treated with prednisone only. We compared the improvement of neurologic defects at recovery phase.

Results : Compared with two groups, difference in grading scale at recovery phase is statistically significant(p<0.01). So, acyclovir-prednisone group showed a significant improvement in grading scale at recovery phase compared with prednisone group.

Conclusion : We identified the benefits of add-on acyclovir in the acute stage of BP.

Key Words : Bell's palsy, HSV-1, Acyclovir

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Austin 2

1830 Charles Bell

가
(facial canal)

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Acyclovir

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herpes simplex virus type-1(HSV-1) vari-
cella zoster virus(VZV)

^{1,4-9} HSV-1 VZV 가 가

1 가 5

(geniculate ganglion) 2 가

^{1,9}

House-
Brackmann Facial Grading System

가 1 6 1 6
가 가 (Table 1).¹¹

^{8,10}
HSV VZV가

acyclovir 가 가

acyclovir

20 10 acyclovir
prednisone acyclovir 10
mg/kg 100 ml 8
5 . Prednisone 20 mg 1 3
1 가 2

1999 1 2000 5 9 2 15 mg

78 35 .

20 acyclovir pred-
nisone 가

15 prednisone

35 . 2

가

15

Table 1. House-Brackmann Facial Nerve Grading System

Grade	Definition
I. Normal	Normal facial function in all areas.
II. Mild dysfunction	Gross: slight weakness noticeable only on close inspection; may have slight synkinesis. At rest: normal symmetry and tone. Motion: moderate to good movement of forehead; ability to close eye with minimal effort and slight asymmetry; ability to move corners of mouth with slight asymmetry
III. Moderate dysfunction	Gross: obvious but not disfiguring difference between two sides; noticeable but not severe synkinesis, contracture and/or hemifacial spasm. At rest: normal symmetry and tone. Motion: slight to moderate movement of forehead; ability to close eye with maximal effort; mouth slightly weak with maximal effort
IV. Moderately severe dysfunction	Gross: obvious weakness and/or disfiguring asymmetry. At rest: normal symmetry and tone. Motion: no movement of forehead; inability to close eye completely with maximal effort; a symmetrical movement of corners of mouth with maximal effort
V. Severe dysfunction	Gross: only barely perceptible motion. At rest: asymmetry. Motion: no movement of forehead; incomplete closure of eye and only slight movement of mouth.
VI. Total paralysis	No movement

Table 2. Comparison of parameters between control and experimental group

		Control(n=15)	Experimental(n=20)	x ² -value	p-value
Age (years)	<30	3	7	0.972	0.615
	29<, <50	5	5		
	49<	7	8		
Sex	Female	8	11	0.010	0.922
	Male	7	9		
Lesion	Left	6	8	0.000	1.000
	Right	9	12		

Table 3. Severity grading of acute and recovery phase in patients with Bell's palsy

Group	Acute phase					Recovery phase				
	I	II	III	IV	V	I	II	III	IV	V
Control (n=15)			5	9	1	7	5	3		
Experimental (n=20)				9	11	16	4			

Table 4. t-test in the difference between pre- and post-treatment in two groups

	Pre-treatment mean±SD	Post-treatment mean±SD	Difference between pre- and post-treatment mean±SD	t-value	p-value
Control (n=15)	3.73±0.59	1.73±0.80	2.00±0.93	-4.781	0.000
Experimental (n=20)	4.55±0.51	1.20±0.41	3.35±0.75		

paired t-test Ver. 6.12 SAS 5 가 11 3 가 5 , 4 가 9 , 5 1 6 ± 4.55±0.51 (two-sided test) 3.73±0.59 . 2 가 1 가 16 , 2 가 4 1 가 7 , 2 가 5 , 3 가 3 . 가 ± 1.2± 가 16 (45.7%) 가 19 0.41 1.73±0.80 (Table 3). (54.3%) 가 21 (60.0%) 가 14 (40.0%) . 가 30 10 (28.6%), 30 50 가 10 (28.6%), 50 15 (42.9%) 가 x²-test (p>0.05), (p>0.05) 가 (Table 2). t-test 가 (t = - 4 가 9 4.781, p<0.01)(Table 4).

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