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	n	before	after	P value

DIFFERENCIAL IMPROVEMENT BETWEEN VOIDING AND MOTOR FUNCTION OF LOWER EXTREMITY AFTER THE CONSERVATIVE THERAPIES FOR THE PATIENTS OF HUMAN T-CELL LYMPHOTROPHIC VIRUS TYPE 1-ASSOCIATED MYELOPATHY.

Hypothesis / aims of study

In patients with human T-cell lymphotropic virus type I (HTLV-I) –associated myelopathy/tropical spastic paraparesis (HAM/TSP), the major symptoms are gait disturbance and voiding dysfunction. Patients are usually treated with the conservative therapies with interferon or steroid pulse for the spastic paraparesis. Many patients with HAM/TSP are in the detrusor underactivity with or without detrusor sphincter dyssynergia (DSD). Finally, many of them will be managed with clean intermittent self-catheterization (CIC). However, the conservative therapies, such as interferon therapy or steroid pulse therapy, are sometimes effective for the spastic paraparesis. In this study, we examined whether the conservative therapies were effective for the improvement of their urological symptoms.

	Cases
Interferon	5
Plasma exchange	2
Heparin i.v.	1
Steroid pulse therapy	2
Others drug(vitamin C,ibudilast beraprost sodium,pentoxifylline)	10

Study design, materials and methods

Voiding functions of 20 patients (1 male, 19 females, aged 39-76 years, mean; 57.6 years) with HAM/TSP were analyzed retrospectively. They were treated with the conservative therapies (Table 1) by neurologists. We analysed the alteration of voiding and motor function of lower extremity before and after the conservative therapies. All patients were investigated about 24-hour frequency, frequency of daily incontinence episode and urinalysis. Urodynamic study could be performed in 9 of 20 patients. Furthermore, motor function of lower extremity was evaluated by using Osame's score〔1〕.

Table.1 Conservative therapy

Results

Conservative therapies were effective for the motor function of lower extremity in 11 of 20 patients (55%) by using Osame's score. There was no difference of the effect on motor function among conservative therapies. However, any conservative therapies were not effective for their voiding function. Their voiding function before and after conservative therapies was shown as Table 2. In urodynamic analysis, 5 patients had detrusor underactivity, 2 patients had detrusor overactivity and 2 patients had almost normal detrusor function before the therapy. Voiding functions of all 9 patients were not improved in urodynamic study. Voiding functions of 2 normal patients were changed to each detrusor underactivity and overactivity.

Table.2 Voiding function

24-hour frequency	20	9.7	8.4	n.s.
Frequency of daily incontinence episode (%)	20	40	45	n.s.
Maximum cystometric capacity(ml)	20	280	302	n.s.
Post void residual (ml)	20	57.5	73.9	n.s.
Maximum voiding pressure (cmH_2O)	9	44.1	27.1	n.s.
Maximum urethral closure pressure(cmH_2O)	9	52.8	42.6	n.s.
Frequency of detrusor sphincter dyssynergia(%)	9	33.3	33.3	n.s.

Interpretation of results

It is reported that conservative therapies improve the gait function with HAM/TSP patients〔2〕. Eleven of 20 cases with HAM/TSP patients (55 %) improved in motor function of lower extremity. However, conservative therapies could not improve voiding function. Two normal patients in voiding function could not be kept the normal voiding function by conservative therapies. It is considered that the progression of voiding dysfunction can not be stopped by conservative therapies. Conservative therapy may be different affinity between the lower extremity and bladder.

Concluding message

The conservative therapies in HAM/TSP patients were effective for motor function. However, they were not effective for voiding function. It is difficult to improve the voiding dysfunction with conservative therapies. As HAM/TSP is progressive disease, HAM/TSP patients should be periodically evaluated for their urological managements.

References

1. Osame M, Igata A, Matsumoto M, et al. HTLV-I-associated myelopathy(HAM). Treatment trials, retrospective survey, and clinical and laboratory findings. Hematol Rev 1990; 3: 271-284
2. Nakamura T, Shibayama K, Nagasato K, et al. The efficacy of interferon- alpha treatment in human T-lymphotropic virus type- -associated myelopathy. Jpn J Med 1990; 29:362-367

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