Voiding Dysfunction in Patients with Human T-Lymphotropic-Virus-Type-1-Associated Myelopathy

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Key Words

Voiding dysfunction
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Abstract

Voiding dysfunction in patients with human T-lymphotropic-virus-type-1-associated myelopathy (HAM) was studied. All the patients were diagnosed as having HAM by neurologists. We have already reported on 16 consequent patients with HAM. Almost all of these patients had frequency, and many had urge incontinence of urine and difficulty on voiding. Urodynamic study revealed that their voiding symptoms seemed to be due to detrusor hyperactivity and detrusor-sphincter dyssynergia. However, we have recently treated 2 patients who had a different bladder function. They had both frequency and difficulty in voiding but without urgency. In the urodynamic study both patients did not have involuntary bladder contraction during the filling phase and could not void voluntarily. The reason why these 2 patients had an underactive detrusor is unclear. The fact that the average duration of HAM in the 16 patients previously mentioned was longer than that of the latter 2 patients may suggest that overactivity of the bladder is not prominent in the early phase of this disease.

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Human T-lymphotropic-virus-type-1 (called HTLV-1)-associated myelopathy (HAM) which has been known since 1986 is a new clinical entity. HTLV-1 is one of the human retroviruses. The retro virus has three subfamilies which are the oncovirus, lentivirus and spumivirus subfamilies. HTLV-1 belongs to the oncovirus subfamily and HTLV-3 belongs to the lentivirus subfamily. HTLV-1 leads to adult T cell leukemia. HTLV-3 called HIV is notorious as a virus which leads to the acquired immunodeficiency syndrome abbreviated AIDS. However, the HTLV-1 virus has been thought responsible for HAM; the pathophysiological mechanism of HAM is still controversial.

The Saga Medical School is located in the middle part of the Kyushu island which represents the south-western part of Japan. On the Kyushu island, a relatively large number of people have HTLV-1 antigens in their blood; consequently, the incidence of HAM seems high in Kyushu. HAM is thought to be identical to the tropical spastic paraparesis on the Caribbean islands. All the patients were diagnosed as having HAM by neurologists in our hospital and were sent to our urodynamic laboratory. Criteria for HAM described by Osame et al. [1] include (1) slowly progressive spastic paraparesis and voiding disorders, and (2) increased titer of antibody against HTLV-1 in serum and in cerebrospinal fluid.

We reported voiding dysfunction in 16 patients with HAM [2]. They were 6 males and 10 females, aged between 32 and 74 years with an average of 53.9 years. The average duration of HAM in these 16 patients was 12.7 years. Almost all of these patients had frequency, and many had urge incontinence of urine and difficulty on voiding. Urodynamic study was performed in 16 patients. All the 16 patients had involuntary detrusor contraction and many had detrusor-sphincter dyssynergia (DSD) (table 1). Consequently their voiding symptoms seemed to be due to detrusor hyperactivity and DSD.

However, we have recently treated 2 patients with a different bladder function. They were 2 females aged 64 and 56 years, duration of HAM was 3 and 6 years, respec-

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Table 1. Voiding symptoms and urodynamic findings of 16 patients

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Numbers

Frequency

Urge incontinence

Difficulty on voiding

Detrusor hyperreflexia

DSD

The reason why these 2 patients had an underactive detrusor is uncertain. The fact that the average duration of HAM in the 16 patients previously mentioned was 12.7 years and that of the latter 2 patients 4.5 years may suggest that overactivity of the bladder is not prominent in the early phase of this disease.

In summary, in HAM most of the patients with bladder dysfunction showed detrusor hyperreflexia with DSD, and a few patients with short duration of HAM appeared to have an underactive detrusor.

Table 2. Clinical appearance and urodynamic findings of 2 patients

Patient

Age, years

Duration of HAM. years

Frequency

Urgency

Difficulty on voiding

Bladder capacity, ml

Bladder contraction

No. 1

64 6

+

440

No. 2

56 3

+ 840

References

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