

Three cases of progressive supranuclear palsy that presented the symptom of stammering

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Abstract

We conducted sound analysis on three cases of PSP who had the symptom of stammering, and the condition of each patient was examined. All patients occurred in fall characteristics, and freezing of gait was remarkable. Regarding the cognitive function, the MMSE of the three patients decreased normal or slightness. FAB decreased in one case. In the sound analysis, Patient 1 had enlargement of the head rhyme, but it was shortened with clockface instructions and a sound cue. Patients 2 and 3 had enlargement of the head rhyme similarly, and stammering symptoms such as the repetition of phrases and restatement were found. It was thought that the three cases were PSP-PAGF which presents a stammering symptom as a motor start disorder.

Keywords: PSP, FAB, MMSE, PSP-PAGF

Introduction

Progressive supranuclear palsy (PSP) is a neurodegenerative disease characterized by fortunetelling fall characteristics in addition to Parkinsonism and dementia.

It is known that PSP causes a variety of lalopathy such as explosive speech or scanning speech [1]. We examined three cases of PSP who had the stammering symptom. The condition of each patient was examined using sound analysis.

Materials & Methods

Patient 1 was a man who suffered from wincing in 2005. Stuttering developed at

utterance from 2008. As for the stammering symptom, repetition of the head rhyme, enlargement, a block were important. The conversation acuity was 3. Patient 2 was a man who experienced a slowing walk in about 2004. The utterance was low. As for the stammering symptom, repetition of the head rhyme was important. The conversation acuity was 3. Patient 3 was a man who had had brachybasia in 2006. Hoarseness and stammering symptoms developed in 2008. Repetition of the head rhyme was a stammering symptom, enlargement were found. When conversation was continued, sound has been become voiceless. The conversation acuity was 4. Sound analysis was conducted with neurologic findings on the three above-mentioned cases.

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Results

The three patients occurred with the easy fall, and freezing of gait was remarkable. Regarding the cognitive function, MMSE decreased normal or slightness. FAB decreased in only one case. In the sound analysis, Patient 1 had enlargement of the head rhyme for from 2.7 seconds to 7.46 seconds. This shortened with clockface instructions and a sound cue for 0.75-1.76 seconds. However, shortening was not found with inappropriate cues. Patients 2 and 3 had similar enlargement of the head rhyme for from 0.92 seconds to 3.97 seconds. Stammering symptoms such as the repetition of phrases and restatement were found. In the patients who presented with significant stammering symptoms, an improvement in their utterances was found with clockface instructions and appropriate sound cues.

Discussion

These three patients occurred with the easy fall, and Parkinsonism gradually surfaced, suggesting PSP. However, the stammering symptom has not attracted attention at all until now in PSP. In recent years PSP has come to be classified into five subtypes [1]. We considered which type these patients belonged to. When we considered motor symptoms, it was thought that the patients belonged to PSP-PAGF in four types except PSP-PNFA [2]. It was a characteristic that the lalopathy of the three patients included stammering symptoms. On the other hand, PSP-PNFA is accompanied with symptoms such as stammering or apraxia of speech (AOS). PSP-PNFA is also called progressive non-fluent aphasia, which is a diagnosis name based on clinical manifestations purely [3]. AOS accounts for some symptoms of PSP-PNFA. The present patients showed prosody disorder and improvement in speaking under unconsciousness, which were partial symptoms of AOS. The patients did not have other symptoms of PSP-PNFA. They seemed to have PSP-PAGF accompanied with a prosody disorder and

improvement of speaking under unconsciousness. Actually, it is known that PSP-PAGF may merge freezing of speech, which is a part of the prosody disorder [4]. The speaking symptom, mainly the stammering symptom of these cases, were similar to AOS to some extent but different in the point that errors of articulation and exploratory behavior of articulation were not seen. It is interesting to have been canceled the cue that a stammering symptom of the present case is appropriate. This may suggest that the start hesitation that is found in PSP-PAGF is remarkable in not only the walking but also the speaking in the present patients.

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