

소아 어지러움증의 임상적 양상 및 진단적 분류

정연훈 · 박기현 · 문성균 · 유상준

Clinical Characteristics and Diagnostic Classification of Vertigo in Children

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ABSTRACT

Background and Objectives : Vertigo in children is relatively uncommon. The severity of vertigo in children varies from mild balance disturbance to true vertigo with obvious nystagmus and falling. There is not much concern about vertigo in children, thus only a few articles exist. The purpose of this study is to analyze the clinical characteristics and the results of audiological and vestibular evaluation, to classify the diagnostic causes of vertigo, and to provide the information about vertigo in children. **Materials and Methods** : A total of 49 patients with vertigo or dizziness who visited Dizziness Clinic in the Department of Otolaryngology at Ajou University Hospital from January 1995 to December 2001 were included in this study. These patients were retrospectively reviewed based on clinical charts. The average age of the patients was 11.9 years, with a minimum of 3 years and a maximum of 15 years. All patients performed questionnaires and pure tone audiometries. Caloric tests and rotational tests were performed in 39 and 40 patients respectively. In selective cases, computed tomography, magnetic resonance imaging, electroencephalogram and hematologic test were performed. **Results** : Migraine and benign paroxysmal vertigo of childhood (BPVC) were 32.7% and 20.4% in children with vertigo, respectively. Other causes were trauma, Meniere's disease, delayed endolymphatic hydrops, benign positional vertigo, cerebellopontine angle tumor, seizure, otitis media and unknown causes were 16.3%. Audiometry, caloric and rotational chair tests showed abnormal findings in 11 cases (22%), 5 cases (13%) and 30 cases (75%), respectively. **Conclusion** : Vertigo in children has different causes from adult vertigo, showing migraine and BPVC to be the most frequent causes. The evaluation of vertigo in children should include a complete history (questionnaire) and physical examination, an audiogram, and vestibular function tests. In selective cases, EEG, Hematologic evaluation and scanning of the brain or temporal bone should be performed. (Korean J Otolaryngol 2003;46:105-9)

KEY WORDS : Vertigo · Classification · Child.

			16		
				가	1977 Eviatar ²⁾
			50		
	가	가	42		
			1980	Fried ³⁾	14
가				가	
가				⁴⁾	
				가	
					가
					¹⁾
					⁵⁾⁶⁾
	: 2002 10 30 /		: 2002 12 26		
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1995 1 2001 12
 Clinic 15
 126
 가 가 49
 (500, 1000, 2000, 3000 Hz)가
 27 dB 27 dB

(META - 4, Micromedical technologies INC, USA)
 (canal paresis)가 27%
 (System 2000, Micromedical technologies INC, USA)
 VOR(vestibulo-ocular reflex), VFX(visual fixation), VVOR(visual vestibulo-ocular reflex)
 , gain, phase, asymmetry

1988 IHS(International Headache Society)
 7) 2001 Neuhauser 8)

49 가 18 , 가 31
 11.9 (: 3~15).

16 (32.7%),
 (Benign paroxysmal vertigo of childhood) 10 (20.4%) 가
 가 8 (16.3%)
 3 ,
 2 ,
 가
 가 1 (Table 1).
 가

Table 1. Causes of vertigo in children

Migraine	16 (32.7%)
Benign paroxysmal vertigo of childhood	10 (20.4%)
Trauma	3 (6.1%)
Meniere's disease	2 (4.1%)
Delayed endolymphatic hydrops	2 (4.1%)
Benign positional vertigo	2 (4.1%)
Cerebellopontine angle tumor	1 (2.0%)
Seizure	1 (2.0%)
Otitis media with effusion	1 (2.0%)
Acute vestibular neuritis	1 (2.0%)
Autoimmune disease	1 (2.0%)
After ventilation tube insertion	1 (2.0%)
Unclassified	8 (16.3%)
Total	49 (100%)

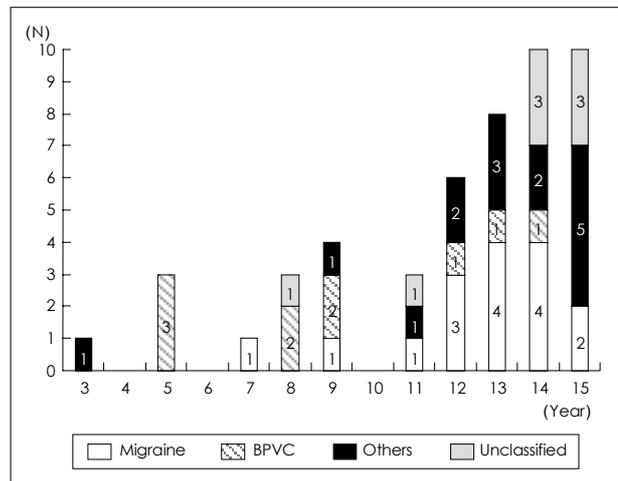


Fig. 1. Age distribution according to causes. BPVC : Benign paroxysmal vertigo of childhood.

7 15
 13 14
 5 9

(Fig. 1).

(Fig. 2).

11 (22%) 2

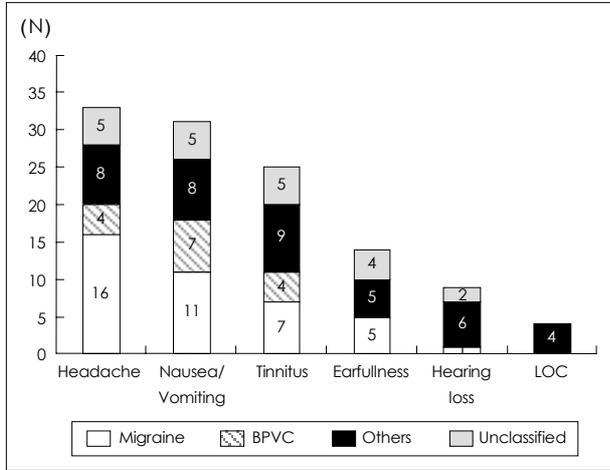


Fig. 2. Associated symptoms according to causes of vertigo in children. LOC : Loss of consciousness, BPVC : Benign paroxysmal vertigo of childhood.

Table 2. The results of audiological and vestibular function test

Disease	PTA	Caloric test	Rotation test
Normal	38 (78%)	33 (87%)	10 (25%)
Abnormal	11 (22%)	5 (13%)	30 (75%)
Total	49 (100%)	38 (100%)	40 (100%)

PTA : Pure tone audiometry

9 , 가
(Table 2).
38
1 , 1
2 , 1 , 1
5 (13%)
40 , 30 (75%)
8 ,
5 , 2 ,
2 , , 1 ,
가 7 (Table 2).
1 () ,
1

가 . Harrison 16
5 , 3 , 2
6
, 1977 Eviatar ²⁾
50 42
1980 Fried ³⁾ 가
, 1995 Bower ⁵⁾
가
Herraiz ⁹⁾ Migraine -
BPV of childhood complex
가
가
가
가
가
Migraine - BPV
of childhood complex⁹⁾
26 (53.1%)가 Herraiz
34.7%가
가 , 8
가 (unclassified)가
IHS ⁷⁾ 가
(possible Meniere 's dis-
ease)
가
2 (4.1%)
가
가
Gates ¹¹⁾
1964 Basser ¹²⁾
3

1962 Harrison ¹⁾

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