

Mysak (1980) , ,
(respirodiadochokinesia) . ,
가 (on-off)
(laryngodiadochokinesia) . ,
가 /mΛ-bΛ/, /nΛ-dΛ/, /
η-gΛ/ (velodiadochokinesia)
(pharyngeal valve) (palatopharyngeal valve)
(nasal emission)
. , ,
(articulodiadochokinesia) .
가 ,
가 , . ' ,
(apraxia of speech) (motor programming)
(Darley et al., 1975).
/p/, /t/ /k/ .
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(Ham, 1990). 가 7-10 (rate),
(regularity rhythm) (duration) (Haynes et al.,
1992). Darley et al. (1975)
가
가 5 3 가
. 가
. 12 가

3.

SAS

One-way ANOVA

t-test

4.

가 가

가

. 2583

가

98.65 %

35

가 가

III.

1.

가 가

가

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, $F(3, 24) = 16.68$, $F(3, 24) =$

12.23, $F(3, 24) = 13.61$, $F(3, 24) = 13.48$, $F(3, 24) = 11.40$, $F(3, 24) = 8.92$, $F(3, 24) = 13.78$,

$p < .05]$

가 (< - 3>).

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(: 7)

	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)
	18.7(8.6)	20(9)	17.2(8.7)	9.2(4.3)	9(3.6)	9.2(4.6)	5(2.5)
	22(1.8)	25.2(3.5)	22(2.1)	12.5(2.3)	10.5(1.2)	11(0)	7(0)
	31.7(1.7)	31.7(0.9)	29.2(1.7)	17.2(0.5)	16.7(2.2)	18.7(3.8)	12.2(0.5)
	35.7(4.6)	35.7(1.8)	32.5(1.7)	18(3.5)	15.5(1.9)	16.5(3.3)	10.7(0.9)
	46.5(6.6)	46.7(7.3)	42.7(6.9)	24.7(4.5)	20.7(2.9)	25.5(7)	15.2(2.5)
	41.2(2.5)	40.7(3.3)	39.7(2.9)	22.7(2.2)	21(3.7)	22.7(3)	15(1.4)
	41(6)	41.5(5.5)	40(6.6)	22(4.3)	20.5(3.8)	21.7(4.1)	15(4.3)

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- : (p < .05)

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	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)
	20(6.9)	21.1(7.0)	19.1(7.4)	10(3.5)	9.6(3.0)	10(3.7)	5.8(2.4)
	24(5.3)	22.8(5.3)	22.4(3.8)	12.8(2.8)	11(2.9)	10.8(2.3)	7.6(1.8)
	24.7(3.9)	26.5(3.6)	24.2(3.8)	13.5(2.3)	12(2.1)	12.2(2.2)	8(1.5)
	27.2(3.7)	27.5(3.8)	25.4(3.5)	13.6(2.3)	11(2.4)	12.6(2.66)	8.13(1.4)
	32.5(2.1)	32.5(1.5)	29.8(2)	17.8(0.9)	16.3(1.8)	18(3.2)	11.6(1)
	32.2(2.8)	34.2(2.4)	30.1(2.4)	16.4(1.6)	14.1(1.8)	14.5(1.9)	10.7(1.1)
	36.8(4.1)	35.7(1.9)	32.5(2.7)	18(3.2)	15.4(2.2)	16.4(2.6)	11.1(1.6)
	41.5(2.3)	38.7(2.5)	36.2(1.2)	18.7(2.5)	16(0.8)	17(0.8)	11.5(1.2)
	45.4(5.3)	47.3(6.7)	42.7(6.6)	26.8(5.9)	22.2(4.2)	24.9(6.1)	15(1.8)
	45.6(3.8)	47.5(5.9)	44.9(5.9)	23.4(4.2)	20.7(3.6)	22(4.2)	14.8(2)
	49(0)	45(0)	46(0)	23(0)	24(0)	25(0)	15(0)
	43.8(6)	43(5.7)	42.2(6)	24.8(4.9)	21.4(3.3)	23.4(3)	15.5(1.8)
	41(6)	41.5(5.5)	40.5(6.6)	22(4.3)	20.5(3.8)	21.7(4.1)	15(4.3)

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Kent et al. (1987)

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(spectral analysis)

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. McNutt (1977)가

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(Bernthal & Bankson, 1993).

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. Tiffany (1980) ,

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(speech mecha-

(Netsell, 1983).

Computerized Speech Lab (CSL)

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ABSTRACT

Diadochokinetic Rate of Normal Children and Adults: A Preliminary Study

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Samsung Medical Center)**

Intelligibility and naturalness of speech can be affected by diminished strength, speed, and range of the articulatory muscles. Therefore, diadochokinetic rate that requires alternating articulatory movements is used to provide an objective measure of the impairment of the lips, the anterior and posterior tongue, and the mandible to screen neurological disorders. The purpose of this research is to provide preliminary norms of diadochokinetic rate in Korean. One hundred and twenty-three normal people with ages ranging from 2 to 73 years were studied. They were divided into 7 groups according to their ages. Seven diadochokinetic movements were recorded with /pa/, /ta/, /ka/, /pata/, /paka/, /taka/, and /pataka/. The subjects were simply instructed to produce the sounds as rapidly as possible at comfortable pitch and loudness for 7 seconds. Three trials of each diadochokinetic movement were elicited. Diadochokinetic rates increased as people aged then started to decrease after the age of 40. The differences in diadochokinetic rates between male and female subjects were not significant. Young females tend to perform better than males. However, elderly males tend to perform better than females. Diadochokinetic rates decreased from high to low in the following order: /ta/, /pa/, /ka/, /pata/, /taka/, and /paka/. The performances of one syllable, two syllables, and three syllables showed the rate ratio of 3:2:1.

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