

Comparison of the Foot Pressure Characteristics in Parkinson's Disease Patient and Normal Subjects

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Key words : Foot pressure, Parkinson's disease, total stance time, phase ratio

1. (Parkinson's disease) 가 heel strike heel , mid stance heel metatarsal , heel propulsions metatarsal Toe 가

(), , 3 가

[1]. . 65 가

1% 가

[2], 5~10 가

가가 가

가

[3-4]. 가

가 . Foot-scan system (RS Scan international)

Foot-scan system 가

가 (total stance time) (phase) 20

(: phase ratio) , 60

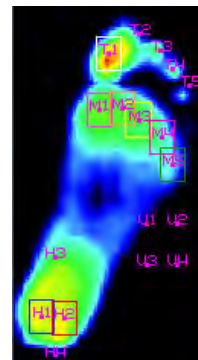


Fig. 1 Anatomic landmarks designation

2. , 2005 4 2006 6

가 Hoehn and Yahr stage I, II, III

23 (64±6)

(500mg, L-dopa) Foot Scan

34 (65±7) 20 21 (25±2)

Foot-scan 1cm2 4

sensor 가 , 98 x 33 cm active area 가

plate . plate

(3m) 3m

, 2~3

가

가 Footscan 가

가 UPDRS[5] motor examination Part III

finger tapping, rapid fisting, rapid alternating movment of hand, leg agility

가 Bradykinesia global

가 . Bradykinesia global 15 5

3.

3.1 Total Stance Time ()

Fig. 2 , 20 , 60 , 가

()

(Bradykinesia global)

Fig.3 , Bradykinesia global

Fig. 1

big toe (T1), metatarsal heads 5 (M1~M5), heel region 2 (H1, H2)

heel 가

strike, mid-stance, propulsions (phase ratio) 가

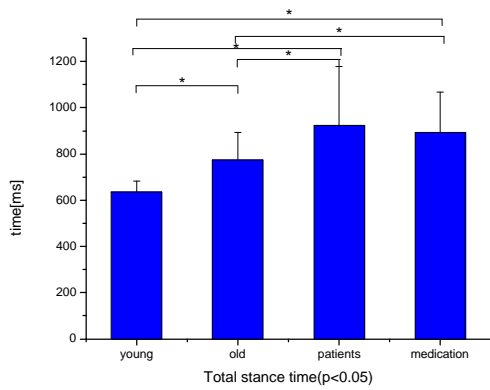


Fig. 2 Total stance time of young, old, patient before and after medication (*: $p < 0.05$)

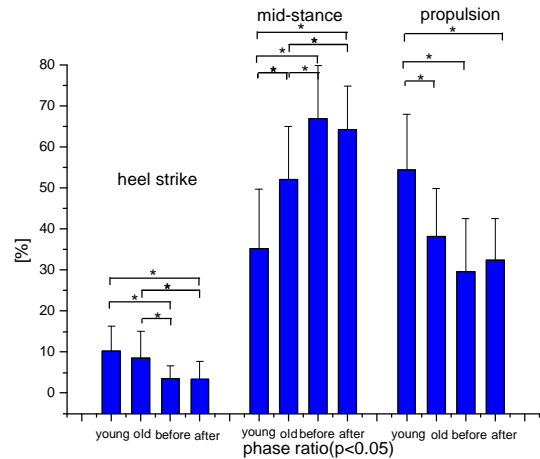


Fig. 4 Phase ratios of young, old, patient before and after medication (*: $p < 0.05$)

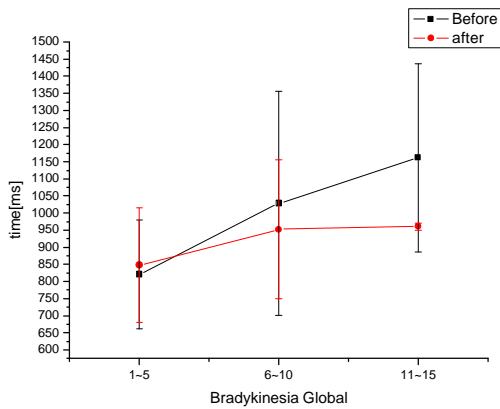


Fig. 3 Total stance time of patient before and after medication with regard to the clinical scale (bradykinesia global)

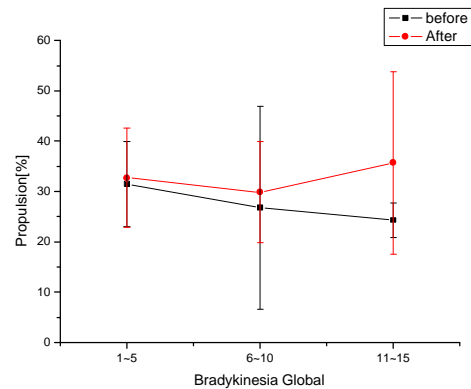


Fig. 5 Propulsion ratio of patient before and after medication with regard to the clinical scale (bradykinesia global)

3.2 Phase Ratio ()

Fig. 4 , 20 , 60 ,
 () , heel strike propulsion
 , mid-stance
 , dynamic phase heel strike propulsion
 mid-stance 가
 , 가
 , mid-stance
 , heel strike propulsion
 , propulsion
 (Bradykinesia global) Fig.5 ,
 Bradykinesia global propulsion

4.

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