P16

The Difference of Pulse Waveform on the Radial Artery by Applied Pressure and Position

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To compare feature of pulse waveform on the radial artery by applied pressure and position, it is considered that the pulse diagnosis of the kwan area has independent worth in the analysis of the change of the pulse figure according to "Area" and "Incremental Pressure measurement". e did experimental research on the difference of pulse waveforms on the radial artery with applied variations of pressure and measuring position. In study, 3D MAC (DAEYOMEDI Co., Ltd.) was used. The clinical study regarding the change of pulse-wave in Kwan area by incremental pressure measurement was experimented. In the comparison analysis of pulse wave around left kwan and right kwan by incremental pressure, t1,t2,t4 and h2/h4 which should be relevant to time showed the significance according to the paired t-test. And in the analysis of the change of pulse-wave around left right kwan area by incremental pressure, all steps of E, h1, t1, t2, A, h4/h1, and t4/t1 and all steps except 1'st one of t2/t1 and A/E showed the significance. And the result of the comparison analysis of the pulse wave of the right kwan pulse and chon kwan chuck pulse suggested that h1, h2, h4, t1, t2, t4, w and A should have the significance in the relation of chon and kwan, and t2,t2 and w should have the significance in the relation of chuck and chon yet nothing should have the significance in the relation of kwan and chuk. And the result of the comparison analysis of 5-step pulse-wave of the left Kwan area and 6-area representative pulse-wave of the left-right chon-kwn-chuck suggested that h2, h4, t1 and t2 should have the significance in the representative pulse wave of the left 3 step and right kwan pulse, t4 should have significance in the left 1 step-right chon, 2 step-left chon and 5 step-right chuck, w should have the significance in the left 2 step-left chon, h2/h1 which is the proportional value should have the significance in the left kwan 2 step-left chon and the left kwan 5 step-right chuck and t2/t1 should have significance in the all steps except left 1 step-right kwan. The result of the comparison analysis of 5-step pulse-wave of the right Kwan area and 6-area representative pulse-wave of the left-right chon-kwn-chuck suggested that h4 should have the significance in the right kwan 3 step-right kwan, t2 should have significance in the right kwan 2 step-left chon, right kwan 2 step-left chon and right kwan 3 step-right kwan, w should have right kwan 2 step-left chon and right kewan 3 step-right kwan, h2/h1 which is the proportional value should have the significance in the right kwan 1 step-rigth chon and the right kwan 2 step-left chon, t2/t1 should have significance in the right kwan 4 step-left kwan and right kwan 5 step-left chuck and A/E should have the significance in the right kwan 5 step-left chuck. And in the result of the pulse-wave comparison of the left kwan area 5-step and 6-area bonjang depth, all factors indicated the significance according to the t-test and the mean of all 5 proportional values except t4/t1 also showed the significance on the result of the proportional values. And in the result of the pulse-wave comparison of the right kwan area 5-step and 6-area bonjang depth, the mean of h1, h2, h4, t2 and A indicated the significance and the mean of all proportional values except w/A indicated the significance on the result of the proportional values. Through the above results of all analyses performed, it can be concluded that the change of step by step pulse figure by incremental pressure measurement should be observed and left right kwan pulse should be similar to each other though the pulse wave of the left right kwan area which is the representative of the pulse diagnosis is independent each other. And the pulse wave of the left kwan 5 step and 6 area bonjang indicated the significant features.

Key words: pulse waveform on the radial artery