

# Study on stability of DMS meridian detector

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**Abstract:** The stability of meridian detector was the basis to study meridian through conductance method. Ancient documents mentioned that the human body's blood could change with the time and meridians. When qi and blood came, the qi and blood would be full of that place; when qi and blood gone, the local skin shining could fade and recess. It liked the tidal fluctuation, then caused the corresponding acupuncture points conductance value changes. Modern studies had reported that meridian detector instrument the skin area of twelve meridians acupuncture points could change along with time within 24 hours. In this circumstance, whether the conductance values changes in human acupuncture points had statistical significance was vital important. DMS meridian detector instruction was adopt to measure the twelve meridian jingyuan acupuncture point in order to analyze the acupuncture point conductance value changes within one day.

**Keywords:** Meridian Detector, DMS instrument, Chinese Traditional Medicine, Qi and blood.

## INTRODUCTION

This study was to observe whether the measured jingyuan acupuncture point data detected in the same day by DMS meridian detector were consistency.

## MATERIALS AND METHODS

### *Research object*

This study had the approval from The Ethics Committee of Guangdong Province. The study subjects were voluntarily signed the informed consent. There were 15 female and 15 male college students were selected from Guangzhou University of Traditional Chinese Medicine in 17<sup>th</sup> March 2012; Jingyuan acupuncture point position was in accordance with the law of the People's Republic of China National Standard (GB 12346-90 acupuncture points).

### *Inclusion criteria*

(1) No clear disease; (2) age from 18 years old to 40 years old; (3) willing to accept investigation, match the municipality; (4) There was no scarring, skin inflammation in the acupuncture area; (5) all the detected students had signed informed consent.

### *Exclusion criteria*

(1) the object with clear disease, especially the serious disease, and affect the state of body function; (2) physical findings suspected major organic disease; (3) people reject to cooperate or have mental disorder; (4) women in lactation, menstrual period, pregnancy, or lactation; (5) people who could not fully cooperate with the experiment and detection due to mental or behavioral disorders; (6) people who cannot complete the investigators because of various reasons; (7) people who were over excited or slept less than five hours on the day before research.

### *Rejection criteria*

(1) subjects who could not finish the detection due to various reasons; (2) the researchers thought that the detection may cause the damage to the subjects.

### *Research method*

Four operators set two hours as one period of time to detect the jing acupuncture point and yuan acupuncture point from eight o'clock in the morning to ten o'clock in the evening. Totally, the measurement was seven times.

### *Equipment preparation*

DMS meridian detector system K-100, which from Sichuan BST Healthcare Company, with patent number of ZL02259744.1. IBM Thinkpad X201s, 75% of medical alcohol, medical absorbent cotton ball, plastic stool.

Environment requirement: the indoor should be less than 60 DB, bright, room temperature should be  $23\pm 2^\circ\text{C}$ , relative humidity should be controlled at  $(70\pm 10)\%$ . The operator was the standardized, well-trained graduate students.

## STATISTICAL ANALYSIS

The detected data were input into Excel database for checking, then were input into SPSS18.0. The repeated measures of General Linear was adopted for statistical analysis,  $P < 0.05$  showed statistically significant difference.

## RESULTS

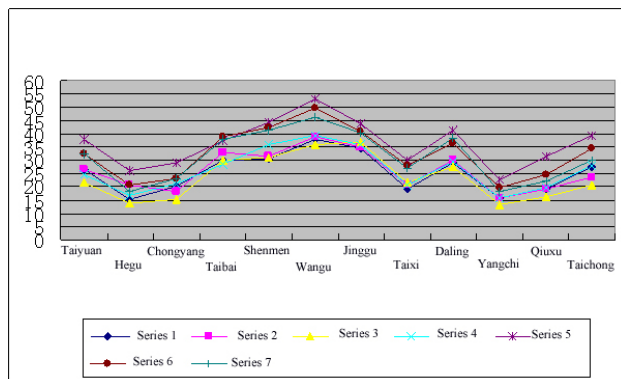
### *The object general information*

There were 30 college students were selected, in which there were 15 female college students, and 15 male college students, age from 18 to 26 years old. Average  $20.10\pm 1.84$  years old.

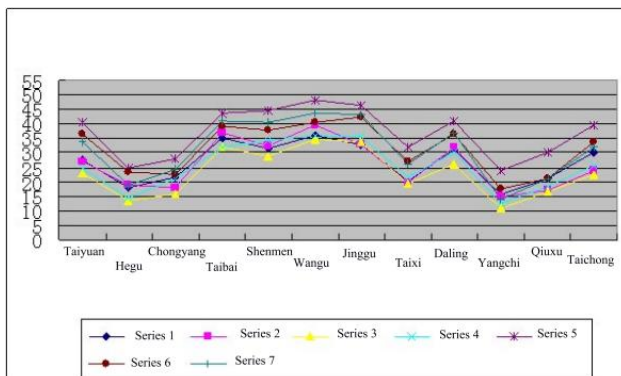
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**Analysis of the acupuncture points conductance value stability for college students in the seven different period of time**

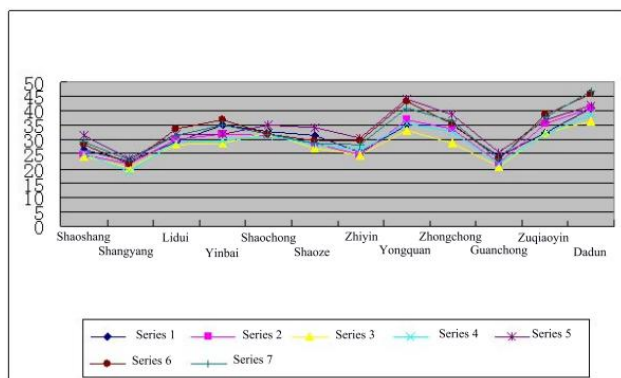
From fig. 1-1, the seven different period of time for the conductance value difference of Yangchi acupuncture point of left side and Jinggu acupuncture point were not statistically significance,  $P < 0.05$ .



**Fig. 1:** Seven periods pictures for left side Yuan acupuncture point in twelve meridian (time was the horizontal axis)

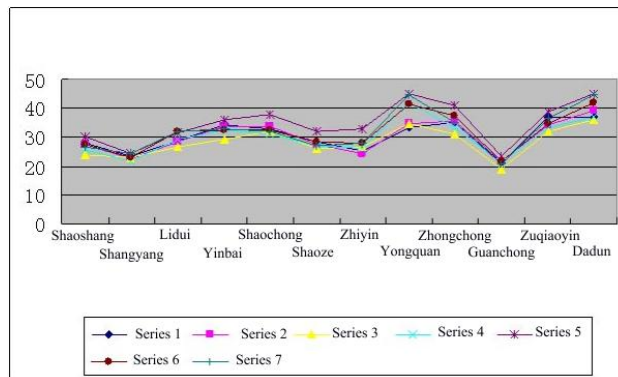


**Fig. 2:** Seven periods pictures for right side Yuan acupuncture point in twelve meridian (time was the horizontal axis)

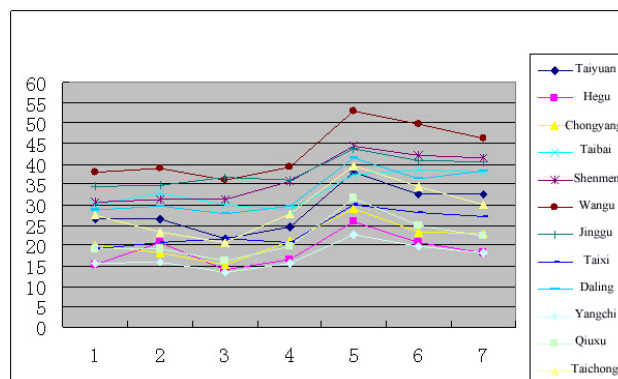


**Fig. 3:** Seven periods pictures for left side Jing acupuncture point in twelve meridian (time was the horizontal axis)

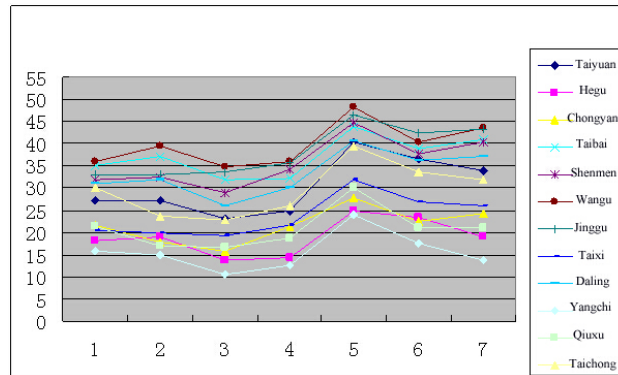
From fig. 1-2, the seven different period of time for the conductance value difference of Taichong acupuncture point of right side were no statistical significance,  $P \geq 0.05$ ; the conductance value of rest right side Yuan acupuncture point had statistical significance,  $P > 0.05$ .



**Fig. 4:** Seven periods pictures for right side Jing acupuncture point in twelve meridian (time was the horizontal axis)



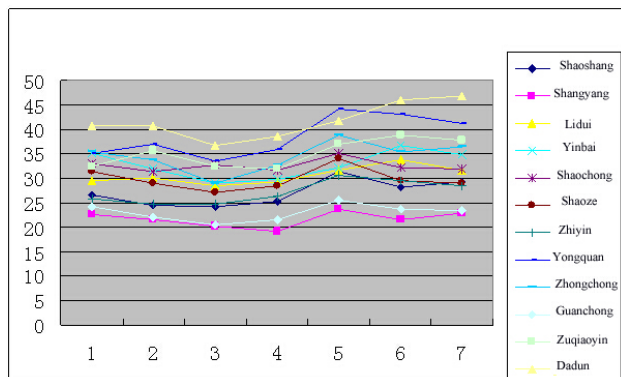
**Fig. 5:** Seven different period of time pic of left side Yuan acupuncture points for the twelve meridians, time was the horizontal axis



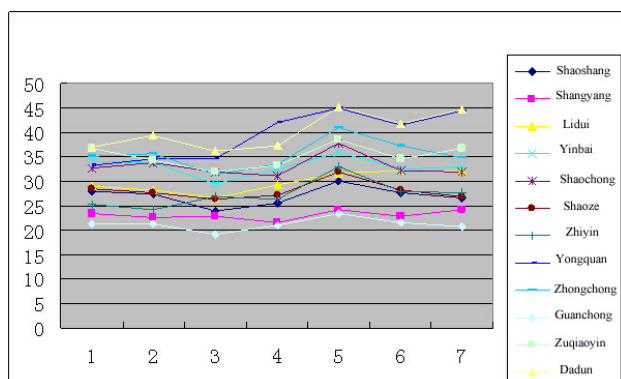
**Fig. 6:** Seven different period of time pic of right side Yuan acupuncture points for the twelve meridians, time was the horizontal axis

From fig. 1-3, the conductance value of left side Shaoshang, Shangyang, Yinbai, Shaochong, Zhiyin, Guanchong, Zuqiaoyin, Dadun had no statistical

significance,  $P \geq 0.05$ , the rest left side Jing acupuncture point had statistical significance,  $P > 0.05$ .



**Fig. 7:** Seven different period of time pic of left side Jing acupuncture points for the twelve meridians, time was the horizontal axis



**Fig. 8:** Seven different period of time pic of right side Jing acupuncture points for the twelve meridians, time was the horizontal axis

From fig. 1-4, the conductance value of right side Zhiyin, Zhongchong, Dadun acupuncture in seven different period of time were statistically significant,  $P < 0.05$ ; the rest left side acupuncture points had statistically significance,  $P \geq 0.05$ .

In conclusion, from the table 1-(1-4), in the seven different period of time, the conductance value of Yuan acupuncture point, the left side Yang chi acupuncture point, Jinggu acupuncture point and the right side Taichong acupuncture point had no statistical significance,  $P > 0.05$ . The rest Yuan acupuncture point had statistical significance,  $P < 0.05$ ; Jing acupuncture point, the Lidui, Shaoze, Yongquan, Zhongchong acupuncture points on the left side and Zhiyin, Zhongchong, Dadun acupuncture points on the right side, the conductance value had statistically significance,  $P < 0.05$ . The rest Jing acupuncture points had no statistical significance,  $P > 0.05$ .

The table 1-1 and table 1-4 expressed the fig. 1-(1-4) by uniform graph. The conductance value changes of Yuan acupuncture points was more significant than Jing

acupuncture point in the seven different periods of time. The below table 1-(5-8) could demonstrated the changes between two neighboring different period of time among the seven different periods of time.

From the table 1-5, the conductance value of the 4<sup>th</sup> period of time and 5<sup>th</sup> period of time had statistical significance,  $P < 0.05$ . The rest neighboring period of time comparison had no statistical significance,  $P > 0.05$ , except for the 2<sup>nd</sup> period of time and 3<sup>rd</sup> period of time conduction vale in left side Hegu acupuncture point. Namely, from 4 p.m. To 6 p.m., the conduction value had statistical significance. Table 1-5 clearly illustrated the conduction value in 5<sup>th</sup> period of time increased significantly, compared to 4<sup>th</sup> period of time.

From the table 1-6, the comparison for right side of Yuan acupuncture points for twelve meridians in the neighboring period of time in the seven periods of time, the 4<sup>th</sup> period of time and the 5<sup>th</sup> period of time conduction value had statistical significance,  $P < 0.05$ . The rest neighboring period had no statistical significance,  $P > 0.05$ , except for the right side Qiuxu acupuncture point at the 5<sup>th</sup> and 6<sup>th</sup> period. The statistical significance could shown between 4 p.m. And 6 p.m. Pic 1-6 clearly demonstrated right side Yuan acupuncture point conduction value at the 5<sup>th</sup> period increased significantly. The ahead neighboring period among the four periods did not have obvious significance.

From table 1-7, in the neighboring acupuncture points comparison of left side Jing acupuncture points of twelve meridian, acupuncture points named Shaochong, Lidui, Shaoze, Zhiyin, Guanchong, Zuqiaoyin, Dadunxue did not have statistical significance,  $P > 0.05$ . The rest acupuncture points conduction vale at 4<sup>th</sup> and 5<sup>th</sup> periods had statistical significance,  $P < 0.05$ , except for Yinbai acupuncture point. The statistical significance could be seen from 4 p.m. To 6 p.m. fig. 1-7 clearly illustrated the statistical results of table 1-7. Compared with Yuan acupuncture points, the neighboring periods conduction value difference in left side Jing acupuncture points was less than that of Yuan acupuncture points.

From 1-8, in the neighboring acupuncture points comparison of right side Jing acupuncture points of twelve meridian, acupuncture points named Shangyang, Lidui, yongquan, guanchong, dadun did not have statistical significance,  $P > 0.05$ , the rest acupuncture points conduction value at 4<sup>th</sup> and 5<sup>th</sup> periods had statistical significance,  $P < 0.05$ . The Zhiyin acupuncture points at 4<sup>th</sup> and 5<sup>th</sup> periods and the 5<sup>th</sup> and 6<sup>th</sup> period. It indicated some acupuncture points conduction value at 4<sup>th</sup> and 5<sup>th</sup> period had statistical significance. Figs. 1-8 clearly demonstrated the statistical results of tables 1-8. The neighboring period conduction value difference in right side Jing acupuncture points was less than that of Yuan acupuncture points.

**Table 1:** seven repetitive measurement variance analysis of left side Yuan acupuncture point in twelve meridians

Acupuncture point	N	1	2	3	4	5	6	7	F	P
Taiyuan	30	26.33±18.99	26.40±18.90	21.57±17.83	24.70±15.82	37.90±18.33	32.70±18.06	32.70±18.03	4.78	0.00
Hegu	30	15.43±16.44	20.60±15.99	13.97±13.44	16.73±14.61	26.00±16.68	20.77±16.98	18.23±16.54	2.91	0.03
Chongyang	30	20.20±17.79	18.27±14.59	15.40±13.16	21.03±16.61	29.03±16.23	23.20±20.09	22.93±14.97	0.79	0.00
Taibai	30	29.87±19.88	32.93±20.54	29.90±21.04	28.63±18.78	37.23±16.59	38.77±20.29	37.83±19.51	3.87	0.00
Shenmen	30	30.60±19.98	31.23±18.64	31.17±19.66	35.74±17.27	44.30±19.50	42.07±17.37	41.39±18.32	3.40	0.01
Wangu	30	37.83±21.82	38.87±21.48	35.97±22.49	39.30±19.29	53.13±19.68	49.87±17.35	46.20±18.88	6.02	0.00
Jinggu	30	34.53±20.79	34.80±19.98	36.83±23.29	36.13±20.91	43.63±19.17	40.87±24.31	40.53±19.84	1.28	0.30
Taixi	30	19.27±15.52	20.73±16.79	21.70±15.46	20.87±18.06	30.03±17.92	28.17±21.73	26.97±16.92	2.87*	0.02*
Daling	30	28.83±19.25	29.77±18.42	27.77±18.94	29.57±16.25	41.53±16.35	36.30±16.46	38.23±16.26	3.88	0.01
Yangchi	30	15.73±16.88	15.97±13.76	13.50±9.80	15.60±14.88	22.73±18.53	19.70±18.05	18.13±17.11	2.25	0.07
Qixu	30	19.20±17.28	19.13±14.91	16.20±11.06	19.83±18.47	31.50±20.61	24.80±19.78	22.37±15.26	4.37*	0.00*
Taichong	30	27.60±23.21	23.37±18.16	20.90±18.39	27.80±24.03	39.57±27.16	34.43±29.27	30.13±22.42	3.58*	0.01*

Note: this table was the repeated measurement results of general linear model, in which the \*F and \*P represented Greenhouse-Geisser inner group inspection test, which meet the sphericity test. Results was subject to single covariance analysis; F and P represented Pillai's Trace inner group effect testing, which did not meet sphericity test following the result of multiply covariance. Number 1 to 7 represented corresponding seven different period of time, of which the table 2-4 was same follow the details.

**Table 2:** seven repetitive measurement variance analysis of right side Yuan acupuncture point in twelve meridians

Acupuncture point	N	1	2	3	4	5	6	7	F	P
Taiyuan	30	27.33±18.59	27.13±17.29	23.10±16.36	24.90±15.25	40.40±17.69	36.50±17.90	33.83±16.47	6.37*	0.00*
Hegu	30	18.03±18.77	19.00±15.55	13.70±14.10	14.23±11.80	25.00±17.63	23.47±19.74	18.97±15.93	5.45	0.00
Chongyang	30	21.67±17.62	17.97±13.75	15.73±13.13	21.37±16.26	27.73±16.11	22.50±19.63	24.27±15.05	2.80*	0.02*
Taibai	30	35.10±21.38	37.07±21.04	32.03±20.78	32.07±19.65	43.87±17.89	39.03±21.33	40.87±17.15	4.07	0.01
Shenmen	30	31.77±18.40	32.57±18.65	29.00±18.91	34.30±16.88	44.73±19.09	37.87±22.67	40.43±17.08	3.85*	0.00*
Wangu	30	36.13±18.97	39.57±21.27	34.93±19.23	35.90±19.15	48.33±18.77	40.43±18.06	43.57±8.21	3.57	0.01
Jinggu	30	32.97±21.55	33.13±20.58	33.67±23.28	35.57±21.68	46.40±19.23	42.50±20.04	43.20±19.17	4.96*	0.00*
Taixi	30	20.37±18.44	20.03±13.52	19.23±15.29	21.73±19.23	31.87±17.54	27.00±21.01	26.00±16.97	3.58*	0.01*
Daling	30	31.10±19.48	32.03±20.49	26.10±20.0	30.07±15.05	40.80±18.36	36.37±16.62	37.03±14.65	3.25	0.02
Yangchi	30	15.90±16.78	14.97±11.41	10.63±9.08	12.60±11.59	23.93±18.23	17.53±18.19	13.77±15.09	4.15	0.00
Qixu	30	21.40±21.29	16.93±13.63	16.63±13.02	18.60±17.60	30.13±18.68	21.17±19.00	21.03±13.77	3.35*	0.01*
Taichong	30	30.10±25.98	23.70±18.20	22.73±19.15	25.90±20.94	39.60±25.43	33.60±25.37	32.03±23.76	2.50	0.05

**Table 3:** seven repetitive measurement variance analysis of left side Jing acupuncture point in twelve meridians

Acupuncture point	N	1	2	3	4	5	6	7	F	P
Shaoshang	30	26.67±12.55	24.60±13.02	24.17±13.79	25.37±13.65	31.43±12.15	28.20±12.26	29.23±14.34	1.92	0.12
Shangyang	30	22.73±12.53	21.60±11.47	20.10±12.19	19.03±9.31	23.63±10.85	21.60±8.04	22.83±8.21	1.80	0.14
Lidui	30	29.50±15.69	30.10±18.29	28.33±17.41	29.33±13.67	31.77±15.28	33.87±14.85	31.60±13.08	0.89	0.00
Yinbai	30	35.00±16.32	31.87±20.09	29.03±18.42	29.83±13.68	32.17±12.40	36.83±13.55	34.97±13.00	2.84	0.31
Shaochong	30	33.00±19.75	31.40±19.70	32.60±18.21	31.63±16.15	35.00±16.21	32.13±15.91	31.93±15.73	0.41	0.86
Shaoze	30	31.47±16.85	28.93±17.07	27.17±16.93	28.47±15.57	34.17±16.01	29.57±13.65	29.03±13.70	4.07	0.01
Zhiyin	30	25.90±14.95	24.80±14.08	24.83±12.45	26.40±13.63	30.70±13.30	29.60±13.16	28.43±11.18	1.73*	0.14*
Yongquan	30	35.03±21.70	36.90±23.99	33.50±22.31	35.80±20.27	44.03±18.85	43.07±19.65	41.20±18.42	3.04	0.02
Zhongchong	30	35.33±18.47	33.67±19.06	29.00±16.90	32.70±15.38	38.77±14.93	35.40±14.08	36.53±14.41	3.79	0.01
Guanchong	30	24.17±14.76	21.97±12.73	20.50±12.29	21.60±12.36	25.60±13.13	23.63±11.89	23.47±12.10	1.88	0.13
Zuqiaoyin	30	32.47±17.76	35.70±19.85	32.33±18.47	32.00±15.63	36.97±16.20	38.90±16.81	37.73±14.88	2.51	0.05
Dadun	30	40.77±21.99	40.80±24.68	36.63±23.52	38.53±19.26	41.80±17.15	46.00±20.44	46.80±18.28	2.44	0.05

**Table 4:** seven repetitive measurement variance analysis of right side Jing acupuncture point in twelve meridians

Acupuncture point	N	1	2	3	4	5	6	7	F	P
Shaoshang	30	27.90±10.96	27.47±14.97	23.93±13.80	25.53±14.55	30.13±13.61	27.53±13.54	26.60±11.66	1.84	0.13
Shangyang	30	23.43±8.92	22.63±12.77	22.97±11.29	21.67±10.24	24.13±9.79	22.93±8.97	24.10±7.84	0.58	0.74
Lidui	30	28.93±17.20	28.23±18.46	26.63±17.64	29.23±15.45	31.57±14.04	32.07±15.21	32.20±12.36	0.70	0.65
Yinbai	30	34.07±16.16	33.87±20.66	29.47±17.10	32.33±15.93	36.00±13.29	32.47±13.18	32.90±12.06	1.16	0.36
Shaochong	30	32.67±15.15	33.90±18.56	31.90±17.91	31.17±16.15	37.87±16.32	32.27±15.49	32.03±13.31	1.80	0.14
Shaoze	30	28.57±12.62	27.67±14.93	26.30±14.46	27.07±14.17	32.03±15.70	28.27±13.17	26.83±11.79	0.95*	0.44*
Zhiyin	30	25.33±17.03	24.17±14.03	26.80±17.91	26.23±15.10	32.90±13.15	27.80±15.67	27.77±11.73	3.91	0.01
Yongquan	30	33.37±23.68	34.63±26.07	34.70±25.35	42.00±23.64	44.93±17.51	41.43±19.64	44.47±19.91	2.36	0.06
Zhongchong	30	35.10±14.99	35.70±18.19	31.30±17.14	33.47±19.41	41.03±15.35	37.27±14.95	34.97±12.13	3.25	0.02
Guanchong	30	21.23±9.07	21.40±12.98	19.10±12.15	21.07±15.08	23.40±11.60	21.50±11.89	20.70±9.50	0.89	0.52
Zuqiaoyin	30	36.80±22.01	34.27±13.07	32.00±19.30	33.30±17.34	38.67±13.85	34.47±15.71	36.60±14.65	2.26	0.07
Dadun	30	37.10±21.13	39.37±22.49	36.10±20.80	37.13±21.36	45.23±17.98	41.70±15.63	44.77±13.73	2.80	0.03

**Table 5:** conductance value comparison of the two neighboring different period of time for the left side twelve Yuan acupuncture points, *P* value

Time range	Taiyuan	Hegu	Chongyang	Taibai	Shenmen	Wangu	Jinggu	Taixi	Daling	Yangchi	Qiuxu	Taichong
1 <sup>st</sup> period of time vs. 2 <sup>nd</sup> period of time	0.98	0.08	0.48	0.31	0.81	0.63	0.90	0.67	0.71	0.95	0.98	0.00
2 <sup>nd</sup> period of time vs. 3 <sup>rd</sup> period of time	0.10	0.04	0.33	0.28	0.98	0.32	0.59	0.77	0.40	0.38	0.32	2.98
3 <sup>rd</sup> period of time vs. 4 <sup>th</sup> period if time	0.41	0.43	0.06	0.73	0.24	0.29	0.86	0.81	0.60	0.47	0.28	0.72
4 <sup>th</sup> period of time vs. 5 <sup>th</sup> period of time	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.01	0.00	0.01	0.00	13.56
5 <sup>th</sup> period of time vs. 6 <sup>th</sup> period of time	0.12	0.24	0.09	0.63	0.51	0.33	0.46	0.60	0.07	0.51	0.07	2.53
6 <sup>th</sup> period of time vs. 7 <sup>th</sup> period of time	0.88	0.46	0.92	0.75	0.97	0.10	0.93	0.71	0.46	0.63	0.31	0.02

**Table 6:** conductance value comparison of the two neighboring different period of time for the right side twelve Yuan acupuncture points, *P* value

Time range	Taiyuan	Hegu	Chongyang	Taibai	Shenmen	Wangu	Jinggu	Taixi	Daling	Yangchi	Qiuxu	Taichong
1 <sup>st</sup> period of time vs. 2 <sup>nd</sup> period of time	0.95	0.74	0.18	0.53	0.81	0.21	0.95	0.90	0.76	0.80	0.22	0.08
2 <sup>nd</sup> period of time vs. 3 <sup>rd</sup> period of time	0.20	0.07	0.45	0.11	0.21	0.10	0.87	0.78	0.05	0.10	0.93	0.80
3 <sup>rd</sup> period of time vs. 4 <sup>th</sup> period if time	0.61	0.86	0.10	0.99	0.24	0.84	0.61	0.48	0.32	0.45	0.56	0.47
4 <sup>th</sup> period of time vs. 5 <sup>th</sup> period of time	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00
5 <sup>th</sup> period of time vs. 6 <sup>th</sup> period of time	0.34	0.77	0.19	0.21	0.10	0.06	0.22	0.21	0.25	0.18	0.02	0.21
6 <sup>th</sup> period of time vs. 7 <sup>th</sup> period of time	0.33	0.20	0.51	0.54	0.49	0.37	0.85	0.73	0.83	0.24	0.97	0.63

**Table 7:** conductance value comparison of the two neighboring different periods for the left side twelve Jing acupuncture points, *P* value

Time range	Shaoshang	Shangyang	Lidui	Yinbai	Shaochong	Shaoze	Zhiyin	Yongquan	Zhongchong	Guanchong	Zuqiaoyin	Dadun
1 <sup>st</sup> period of time vs. 2 <sup>nd</sup> period of time	0.29	0.52	0.75	0.14	0.58	0.23	0.57	0.51	0.32	0.28	0.13	0.99
2 <sup>nd</sup> period of time vs. 3 <sup>rd</sup> period of time	0.84	0.38	0.50	0.34	0.71	0.43	0.99	0.36	0.09	0.47	0.34	0.17
3 <sup>rd</sup> period of time vs. 4 <sup>th</sup> period if time	0.63	0.65	0.73	0.79	0.75	0.64	0.50	0.54	0.21	0.64	0.92	0.60
4 <sup>th</sup> period of time vs. 5 <sup>th</sup> period of time	0.00	0.01	0.32	0.30	0.19	0.20	0.06	0.01	0.00	0.05	0.06	0.24
5 <sup>th</sup> period of time vs. 6 <sup>th</sup> period of time	0.13	0.36	0.42	0.03	0.29	0.05	0.69	0.71	0.09	0.40	0.55	0.10
6 <sup>th</sup> period of time vs. 7 <sup>th</sup> period of time	0.59	0.46	0.36	0.36	0.93	0.81	0.62	0.51	0.50	0.92	0.72	0.76

**Table 8:** conductance value comparison of the two neighboring different periods for the right side twelve Jing acupuncture points, *P* value

Time range	Shaoshang	Shangyang	Lidui	Yinbai	Shaochong	Shaoze	Zhiyin	Yongquan	Zhongchong	Guanchong	Zuqiaoyin	Dadun
1 <sup>st</sup> period of time vs. 2 <sup>nd</sup> period of time	0.84	0.64	0.79	0.94	0.69	0.72	0.62	0.65	0.78	0.93	0.43	0.39
2 <sup>nd</sup> period of time vs. 3 <sup>rd</sup> period of time	0.19	0.87	0.61	0.19	0.51	0.59	0.28	0.98	0.16	0.28	0.64	0.38
3 <sup>rd</sup> period of time vs. 4 <sup>th</sup> period if time	0.56	0.55	0.36	0.31	0.83	0.78	0.85	0.09	0.53	0.49	0.72	0.76
4 <sup>th</sup> period of time vs. 5 <sup>th</sup> period of time	0.03	0.07	0.25	0.13	0.01	0.03	0.01	0.43	0.01	0.28	0.04	0.10
5 <sup>th</sup> period of time vs. 6 <sup>th</sup> period of time	0.21	0.46	0.80	0.06	0.06	0.16	0.01	0.12	0.10	0.30	0.06	0.14
6 <sup>th</sup> period of time vs. 7 <sup>th</sup> period of time	0.64	0.37	0.96	0.81	0.92	0.58	0.99	0.27	0.20	0.69	0.35	0.13

## CONCLUSION

Repeatability measurement was always the controversial discussion. Electric measurement was the result of interaction of electric current and acupuncture points. Some researchers supposed that the repeatability of conductivity was poor. The occurrence of this circumstance was not only related with not strict controlled environment, but also the changes of twelve meridian qi and blood based on the changes of time within one day and qi and blood acupuncture point perfusion in traditional medical records. The experimental study of Liu *et al.* (1997) had tracking measured twelve hour continuously for the skin electric currency of the twelve meridians of the 10 cases of healthy subjects. Results were shown that the electric currency of five shu acupuncture points was the lowest at si time (the period of the day from 9 a.m. To 11 a.m. And you time (the period of the day from 5 p.m. To 7 p.m.) and in the highest level at chou time (the period of the day from 1 a.m. To 3 a.m.) and yin time ( the period of the day from 3 a.m. To 5 a.m.). It presented a approximate cosine curve changes. Some researchers supposed the reason why the skin electric currency repeatability of acupuncture points was poor was that the ignorance of Chinese traditional medicine time characteristics of Chinese traditional medicine theory.

The repeated measurement analysis of general linear model was adopted to measure the observation figs. required from the same subjects after repeated measurements under the same environment and different time (seven different times). There were some scholars who study the correlation coefficient of validation meridian instrument stability (Ye *et al.* 2008). The study focus was to observe the stability of the instrument in a short time (tens of minutes), this study focused on the considering of the Ziwu meridian of traditional Chinese medicine to observe the stability in a long time (14 hours). Due to the paper limitation, this article did not list the specific value for Mauchly's test of sphericity. While, the non-listed were marked by \* for identification. The seven period of time for jingyuan acupuncture points were correlated each other, of which had a high correlation, which did not meet spherical proofer. But these could not explain this seven period of time did not had statistical difference. But these could not demonstrate the seven period of time had no statistical difference. It requested us to analyze the analysis between for two different period of

time. The bilateral yuan acupuncture point of the twelve meridians had no statistical difference for the internal parameter value difference of the adjacent 1 to 4 acupuncture points,  $P > 0.05$  (except for left he gu acupuncture points in the second and third period of time). The differences between the forth and fifth period of time had statistical differences. The difference of the sixth and seventh period of time had no statistical significance. The two adjacent acupuncture points for two different of time between for jing acupuncture points of twelve meridians in the seven periods of time had no statistical significance,  $P > 0.05$ , of which there were significance at the forth and fifth period of time, the rest adjacent two periods of time had statistical significance, except for left baiyin acupuncture point, and right zhiyin acupuncture point. From the results from table 2 to table 6, although the second and third adjacent acupuncture points of left hegu acupuncture points had statistical significance, P value was 0.04, which was close to 0.05. The difference was not obvious. The first four periods of time had no statistical difference. The fig. 2-(5-8) had clearly proved that meridian skin conductance value, especially the fifth acupuncture points increased significantly. Same way, the detected value collected between 16 p.m. To 18 p.m. had no obvious difference. The research results proved that results detected from meridian instrument at 8 a.m. To 18 p.m. were consistency. Therefore, in order to guarantee the stability of the data, the time to collect the data for this research was arranged from 8 a.m. to 16 p.m.

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