Conclusion: The effect of heavy metals on testosterone levels in male patients with infertility remains unclear. There is however suggestive evidence that cupping therapy can have a positive impact on testosterone levels in male infertility. Further trials with larger population sample sizes utilising a randomisation methodology is recommended.

Contact: Kaleem Ullah Rajput, kaleem.rajput@medipol.com.tr

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Oral Presentation Session 14: Clinical Research – Diagnosis and Others

OS14.02

Comparison between Infrared Thermographic Scrotal Temperature Index and Semen Quality among Men attending an Infertility Clinic

Junyoung Jo [1], Myung-Ja Kang [2], Jinmoo Lee [3], Hyunho Kim [4]

[1] *Department of Korean Gynecology, Graduate School of Korean Medicine, Kyung Hee University/ Conmaul Hospital*
[2] *Conmaul Hospital*
[3] *Department of Korean Gynecology, Graduate School of Korean Medicine, Kyung Hee University*
[4] *Department of Biofunctional Medicine & Diagnostics, College of Korean Medicine, Kyung Hee University*

Purpose: It has been suggested that scrotal temperature and semen quality are closely associated. The purpose of this study is to explore the associations of the scrotal temperature measured by the infrared thermography and semen quality among infertility clinic outpatients.

Methods: We performed a retrospective chart review of outpatients who visited at Conmaul Hospital, Seoul, Republic of Korea from March 2013 to February 2015. In this study, 48 outpatients who had taken scrotal thermography and semen analysis with a difference of less than a month were included. Semen analysis was done according to 2010 World Health Organization (WHO) guidelines. Abnormal semen parameter was defined as oligozoospermia (O), asthenozoospermia (A) and teratozoospermia (T) according to 2010 WHO guidelines. Scrotal temperature index (STI) was defined as mean left and right skin temperature difference (ΔT) between the thigh and testicle. We divided patients into two groups as High STI group (n=26) and Low STI group (n=22) by mean STI (1.17) of 48 outpatients. Chi-square test was used to analyze the incidence of at least two abnormal semen parameters between two groups.

Results: There were 10 patients (OT=1, AT=7, OAT=2) and 2 patients (AT=1, OT=1) with at least two abnormal semen parameters in High STI group (n=26) and Low STI group (n=22), respectively. High STI group was associated with increased incidences for at least two abnormal semen parameters than Low STI group (OR= 6.25; 95% CI 1.195-32.687, p=0.019).

Conclusion: In the hypothesis testing using chi-square method, there was a significant difference of incidence of at least two abnormal semen parameters according to STI. We suggest that the infrared thermography may provide the semen quality information. Further studies with large samples are needed.

Contact: Junyoung Jo, studd@naver.com

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Trends in Tongue Color of Subtype patterns on Deficiency Syndrome

Changjin Jung, Keunho Kim, Boncho Ku, Jihye Kim

Korea Institute of Oriental Medicine

Purpose: Traditional East Asian Medicine posits that the tongue color (TC) in patients with the deficiency syndrome (DS) differ according to its subtype patterns. The DS is categorized into four subtype patterns (FSPs) based on the qi, blood, yin and yang; and it provides helpful information for treatment of DS in clinic. However, a clinical evidence of TC difference according to the FSP has not appeared in paper. In this study, we measured the TC with an objective method and analyzed its differences according to the FSPs on DS.

Methods: One-hundred and twenty-three subjects with DS were participated in the experiment and classified into qi deficiency (n=32), blood deficiency (n=31), yin deficiency (n=30) and yang deficiency (n=30) groups based on the agreements of diagnostic results between two Korean oriental medicine doctors. Tongue images were acquired by using a TAS-4000 instrument, and a color correction was performed based on 12 color samples of the color checker. Median values (MV) of the tongue region in Commission Internationale de l'Eclairage (CIE) L*a*b* color space, which represents the color of a tongue body, were computed for the tongue color features. Red blood cell count (RBCC) was measured from the blood sample. Different trends of TCs according to the FSP were analyzed using multiway ANOVA with factors age and sex.

Results: MV of CIE L* showed difference according to the FSPs (p<0.01). MVs of CIE L* of blood deficiency group were significantly higher than those of other three groups. Pearson's partial correlation coefficient between RBCCs and MV of CIE b* with age and sex was -0.303.

Conclusion: The TC in the blood deficiency was tended to be brighter than those in other FSPs on DS. The TC seems to be related with RBCC, but the trend of color difference in the blood deficiency differs from that according to RBCC.

Contact: Changjin Jung, traviswas@kiom.re.kr

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