**P2.048**

**Improvements of Scrotal Thermoregulation in Patients with Varicocele Treated by Traditional Korean Medicine: Two Case Reports**

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**Purpose:** Varicocele is a dilatation of the pampiniform venous plexus within the spermatic cord. The incidence of varicoceles is 15% in men, and it occurs in more than 40% of men in infertile couples. Surgery or embolisation for varicoceles can improve a couple's likelihood of conceiving. However, the quality of this evidence is low. Traditional Korean medicine (TKM) has been used to treat male infertility in Korea. We present two cases of men with varicoceles diagnosed via physical examination and scrotal thermography.

**Methods:** We treated these men using TKM techniques, including acupuncture, pharmacopuncture, and herbal medicine, for two months. We used scrotal thermography to evaluate the varicoceles before and after TKM treatment.

**Results:** After TKM treatment, the scrotal thermoregulation of both patients was improved. In Patient 1, the temperature difference between the left and right pampiniform plexus (ΔTP) was 2.8 °C before treatment, and it decreased to 1.3 °C. In addition, the temperature difference between the testicles (ΔTT) was 1.5 °C before treatment, and it decreased to 0.2 °C. In Patient 2, the ΔTP was 1.5 °C before treatment, and it decreased to 0.2 °C.

**Conclusion:** This report is the first to show that TKM might be an option among patients with varicoceles, as determined by scrotal thermography evaluation.

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http://dx.doi.org/10.1016/j.imr.2015.04.154

**P2.049**

**Development of affective touch**

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**Purpose:** Affective touch has been shown to give various health benefits including stress and depression relief. A dichotomy between mechanoreceptive afferents that predominantly signal either discriminative (myelinated Aβ), or affective (unmyelinated C-tactile) aspects of touch has previously been suggested and is well-studied in adults. However, a thorough investigation of how the subjective affective aspects of touch develop early in life is unprecedented.

**Methods:** The current study is investigating the relationship between age and psychophysical ratings in response to affective touch. 42 participants (22 boys, 20 girls) aged from 5-12 years have been recruited. They were presented with C-tactile optimal and sub-optimal brushing velocities and rated pleasantness by use of smiley scales.

**Results:** Preliminary results suggest that both age-groups find the C-tactile optimal velocities more pleasant compared to sub-optimal velocities (p = 0.001). However, no sex or group differences have currently been found.

**Conclusion:** We conclude that the ability to subjectively report affective aspects of touch evolve early in life. This is discussed in relation to cognitive development.

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http://dx.doi.org/10.1016/j.imr.2015.04.155

**P2.050**

**Total Nasal Resistance among Sasang Constitutional Types: A Population-Based Study in Korea**

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**Purpose:** There have been many attempts to find an objective phenotype by Sasang constitutional types (SCTs) on an anatomical, physiological, and psychological basis, but there has been no research on total nasal resistance (TNR) among SCTs.
**Methods:** We assessed the value of the TNR in the SCTs classified by an integrated diagnostic model. Included in the study were 1,346 individuals (701 males, 645 females) who participated in the Korean Genome and Epidemiology Study (KoGES). The TNR was measured by active anterior rhinomanometry (AAR) at transnasal pressures of 100 and 150 Pascal (Pa).

**Results:** The average TNR was 0.186 ± 0.004 Pa/cm³/second at 100 Pa in the Tae-eum (TE), 0.193 ± 0.007 in the So-eum (SE), and 0.208 ± 0.005 in the So-yang (SY) types. Under condition of 150 Pa the TE type had a TNR value of 0.217 ± 0.004, the SE type was 0.230 ± 0.008, and the SY type was 0.243 ± 0.005. Higher values of TNR were more likely to be reported in the SY type at 100 Pa and 150 Pa. In the stratified analysis by sex, the SY type in males and females tended to have higher TNR value than the TE and SE types at transnasal pressure of both 100 Pa and 150 Pa.

**Conclusion:** These results provide new approaches to understand the functional characteristics among the SCTs in terms of nasal physiology. Further studies are required to clarify contributing factors for such a difference.

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**Cupping for Treating Painful Diabetic Neuropathy: A single group before-and-after, preliminary study**

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**Purpose:** Painful diabetic neuropathy (PDN), one of the most common chronic complications affecting approximately 16% of patients with diabetes. PDN, in particular, is reported in 50% of patients with long-term type 1 and 2 diabetes. The primary purpose of this study is to measure the effectiveness of cupping therapy on PDN. The secondary purpose is to compare the characteristics of subjects with improvement rate ≥30% and <30% from baseline.

**Methods:** This study is a single group before-and-after, preliminary study of cupping therapy in patients with painful diabetic peripheral neuropathy. A total of 16 sessions of cupping therapy will be given twice a week for 8 weeks. After attaching a disposable cupping cup (SUNGHO TONGSANG; spec: No. 2, 3.7 cm) to the disinfected area, negative pressure shall be created to – 414.09 ± 4.48 mmHg using an electric cupping device (BC008; SEOUL MEDICAL CO., LTD., Korea) and maintained for 5 minutes. Selection of acupuncture points to be treated should be based on the painful areas and tender points. Cups will be applied to a total of 10 areas of both calves; posterior median, 4; interior, 3; and lateral, 3. 11-point pain intensity numerical rating scale (PI-NRS) score will be the primary outcome measurement used in this study. Sleep disturbance score, SF-MPQ, EQ-5D, nerve conduction study (sural nerve) and Patient Global Impression of Change (PGIC) will be used as secondary outcome measurement. Safety will be assessed at every visit.

**Results:** This trial is currently recruiting participants. (Clinical Research Information Service. Unique identifier: KCT0001316.)

**Conclusion:** The results of this study will help to establish the optimal approach for the care of adults with Painful Diabetic Neuropathy.

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**Assessment of Pulmonary Function Among Sasang Constitutional Types: A population-based study in Korea**

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**Purpose:** Many studies have addressed the hypothesis proposed by the visceral theory in Sasang constitutional medicine that specific types of Sasang constitution have a different functional activity of the internal organs, and have tried to confirm the theory using modern scientific methods. Since few studies have evaluated the activity of the lung, we investigated whether there is a difference in the lung function according to the Sasang constitutional types (SCTs) by means of the pulmonary function test (PFT).

**Methods:** A total of 1,320 individuals who participated in the Korean Genome and Epidemiology Study and completed the PFT were included. SCTs were classified by an integrated diagnostic model. We determined the values of the forced vital capacity (FVC), forced expiratory volume in one second (FEV1), and FEV1/FVC (%) in the SCTs. Participants who had pulmonary disease were excluded from the analysis based on the chest X-ray examination.

**Results:** The Tae-eum (TE) type had significantly lower FVC than the So-eum and So-yang types (P = .0272) after adjusting for confounding factors including age, sex, weight, height, and smoking status. FEV1 did not differ among the SCTs (P = .619). In the analysis stratified by gender, males of the TE type had the highest FEV1/FVC (P = .0401), whereas FVC was the lowest in females of the TE type among the SCTs (P = .0079).

**Conclusion:** These results support the hypothesis that TE type has hypoactive lungs, in terms of the lung volume.

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http://dx.doi.org/10.1016/j.imr.2015.04.157

P2.052

http://dx.doi.org/10.1016/j.imr.2015.04.158