free or pedicle grafts, and venous grafting for the corpora cavernosa, injection of synthetic dermal filler. Currently, as the need for safer, effective and less-invasive procedures is increasing, enhancement procedures using injectable products are in high demand. Injectable soft-tissue substitutes provide an affordable, nonsurgical alternative for correcting contour defects and soft tissue augmentation with autologous fat, silicone, collagen, and hyaluronic acid, dextran filler, polylactic acid.

We have developed two synthetic fillers; Cross-linked dextran and polymethylmethacrylate mixture (Lipen-10), Polylactic acid (PLA) filler.

Penile injection of Cross-linked dextran and polymethylmethacrylate mixture (Lipen-10) and Polylactic acid filler led to significant increase in penile size, showed a good durability and was well-tolerated, without serious adverse events.

Glans penis augmentation has been performed in real practice, although it is not an established procedure. We evaluated the efficacy and safety of injectable cross-linked dextran gel for glans penis augmentation. Gel was injected into the lamina propria layer of the glans penis by the fanning technique in 18 patients. The glandular size was measured, at baseline and at 6 months after injection. As a result, there was a size increase of more than 45%. 16 subjects (88.8%) were satisfied, whereas only two (11.1%) were dissatisfied.

These procedures are still experimental nature and have complexity of the patient’s psychological status, selection of the surgical technique is still highly controversial, and none of the proposed methods has been unanimously approved. In spite of this, we report our experience with cross-linked dextran and polymethylmethacrylate mixture (Lipen-10), Polylactic acid (PLA) filler, for phalloplasty and glanduloplasty performed safely with good efficacy.

**Keywords:** Synthetic fillers; phalloplasty; penis

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**AB66. The self-estimation index of erectile function-no sexual intercourse (SIEF-NS): a multidimensional scale to assess erectile dysfunction in the absence of sexual intercourse**

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**Introduction:** A new concept of Erectile Dysfunction with No Sexual Intercourse (ED-NS) is proposed to acknowledge the subpopulation of patients who are unable to achieve or sustain an erection in the absence of sexual intercourse. Since the commonly used ED diagnostic tool, International Index of Erectile Function Questionnaire is not able to adequately assess the erectile function (EF) in the absence of intercourse, the researchers developed a new 10-item questionnaire to better evaluate the EF in this special patient subpopulation: Self-Estimation Index of Erectile Function-No Sexual Intercourse (SIEF-NS).

**Aim:** To validate the reliability, sensitivity and specificity of SIEF-NS.

**Methods:** The study was carried out in three phases. Phase one applied component analysis to 126 ED-NS patients to search for the primary factors and Cronbach's alpha standardized statistic values for SIEF-NS. Phase two applied discriminant analysis to participants’ (212 ED-NS patients and 193 normal controls) scores on each question item, each factor and the overall 10-item questionnaire. Phase three investigated SIEF-NS’s capability of evaluating treatment effect on 41 ED-NS patients. Reliability, sensitivity and specificity were defined and used to evaluate the performance of SIEF-NS.

**Results:** EF by autonomic response (factor 1) and EF with potential sexual partners (factor 2) are the two primary factors with eigenvalues greater than 1.0. High degree of internal consistency was observed for the two factors and...
the 10-item questionnaire (Cronbach’s alpha values: 0.871 for 10 items, 0.84 for factor 1, and 0.823 for factor 2). SIEF-NS demonstrated adequate construct validity, high sensitivity (0.925) and specificity (0.829) to diagnose ED-NS. The EF scores of ED-NS patients post treatment showed significant improvement (P<0.05).

**Conclusion:** SIEF-NS can be used to identify ED-NS patients and detect treatment-related EF changes in ED-NS patients.

**Keywords:** The self-estimation index of erectile function-no sexual intercourse (SIEF-NS); Erectile Dysfunction with No Sexual Intercourse (ED-NS); erectile function (EF)

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**AB67. Molecular mechanisms of Chinese herbal formula shuganyiyang (SGYY) capsule of treating arteriogenic erectile dysfunction (ED) in a rat model**

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**Objective:** In this research, we use the rat model of arteriogenic erectile dysfunction to study the molecular mechanism of the treatment of erectile dysfunction with Shuganyiyang capsule. From the aspects of regulating relaxation and contraction signaling transduction in the smooth muscle of corpus cavernosum, the expression of connexin and vascular blood vessel endothelium cytokines.

**Methods:** Bilateral ligation of the internal iliac artery was performed on three-month old male Sprague-Dawley rats as an experimental group. The control group was underwent dissection of the internal iliac artery without ligation. Rats in the experimental group were divided into model group, sidenafil group, SGYY low-dosage group (0.5g/kg/d) and high-dosage group (1g/kg/d). After 30 days therapeutic course, expression of mRNA and protein of NOS/cGMP passageway and RhoA/ROCK passageway molecules, expression of CX43, ET and some vascular blood vessel endothelium cytokines such as VEGF, IGF, TGF-β as VEGFendotheliumNA and protein of NOS/cGMP passageway and RhoA/ROCK passageway molecules, ex

**Results:** Expression of eNOS, cGMP were significantly enhanced both in sidenafil group and in SGYY treatment groups (P<0.05). While PDE5 expression was significantly decreased in sidenafil group and SGYY treatment groups (P<0.05). There was no difference between SGYY high-dosage group and sidenafil group(P>0.05); Expression of VEGF, IGF, TGF-β were significantly enhanced in SGYY treatment groups(both high-dosage and low-dosage) (P<0.05). Akt mRNA expression and p-Akt/Akt protein expression were significantly enhanced in the treatment groups too (P<0.05); Plasma concentration of ET-1 was decreased in SGYY treatment groups compared to the model group (in high-dosage group P<0.05, in low dosage group P<0.01). Expression of ET mRNA in penis tissue of rats was decreased in SGYY treatment groups compared to the model group (P<0.01). Expression of CX43 mRNA was increased in the SGYY treatment groups compared to the model group (P<0.01); RhoA, ROCK expression in the treatment groups were significantly enhanced compared to the model group ( in high-dosage group P<0.01, in low dosage group P<0.05).

**Conclusions:** SGYY can improve the expression of NOS/ cGMP passageway molecules such as eNOS, cGMP in rat model with arteriogenic erectile dysfunction. Meanwhile, it can inhibit the expression of PDE5. It can improve the expression of vascular blood vessel endothelium cytokines and the related signaling transduction molecular Akt. It also can improve the expression of CX43, and decrease the expression of ET in rat model with arteriogenic erectile dysfunction, regulating the function of RhoA/ROCK passageway, which is the main signaling transduction of corpus cavernosum smooth muscle contraction. All of the above show the main mechanisms of SGYY capsule of treating AED in rat model.