

802

Mirkin Y¹, Mirkina K², Karapetyan A¹, Shumoff S¹, Ponomarenko M¹, Park M³

1. URO-PRO clinic, 2. Kuban Medical University, 3. Topmed

PARAURETHRAL INJECTIONS OF PLLA/PLGA BULKING AGENT FOR SUI TREATMENT

Hypothesis / aims of study

The history of bulking agents for treatment of SUI has started long time ago from injections of collagen, Teflon, polyacrylamide. Hyaluronic acid injections widely used by surgeons for the last ten years. The advantage of bulking agent is a simple injection's technique and the disadvantage is short duration (less than a year). We supposed that solution can be the application of bulking agent, made of PLLA/PLGA. It has a longer degradation time (till 36 months) and stimulates growth of endogenous collagen.

Study design, materials and methods

35 female patients participated in the study. The age was 33 – 58 years. All of them suffered of SUI. Urodynamic investigation was performed and patients with OAB and urgency were eliminated from the study. Every patient was evaluated with PAD-test: pad was weigh before evaluation, patient was coughing ten times and then, pad was weigh again. The average weight was 46.4 g. (22 – 76 g.) Injections of PLLA/PLGA 85:15 were performed with technique, described below: urethra's length was measured by Foley,s catheter, after that local anaesthesia was performed with injections 1 ml of 1% lidocaine and epinephrine on the three spots – 4, 6, 8 hours of clock dial on the distance 0.5 sm from meatus and 1 sm depth. PLLA/PLGA particles were dissolved in 10 ml water for injections and injected at the same spots (1.5 ml into each spot) with 2 sm depth. Three days later, PAD-test was performed repeatedly and patients, who still loss the urine, took injection of 1.5 ml PLLA/PLGA on the spot, located at 12 hours of clock dial.

PAD-test was performed after 1, 3, 6 months.

Results

18 patients were completely dry. 17 patients loss 1 – 5 ml of urine (average – 1.28 ml). There was a case of AUR, which was solved with IC during 3 days.

Interpretation of results

Follow-up period was 12 months. 94% of patients were satisfied of treatment's results. We're going to evaluate the patients after 36 months.

Concluding message

The PLLA/PLGA particles seem promised bulking agents for SUI treatment. Further trials are necessary.

Disclosures

Funding: NON Clinical Trial: Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Local Ethics Committee of Kuban State Medical University **Helsinki:** Yes **Informed Consent:** Yes