Formation of the Connective Tissue with Cell-Active "LitAr" Material for the Treatment of Stress Urinary Incontinence: Results of 3 Years' Observations

Introduction and Objective: The application of cell-active implants makes possible formation of the connecting tissue for the treatment in stress urinary incontinence (SUI) surgery. Thus, the biotransformation of the material can occur in the shortest possible time. Regeneration and angiogenesis in the replacement zone should proceed without toxic products formation.
Materials and Methods: The 41 middle-aged patients of 47,5 years (43 to 61) with type 2 of female SUI were subjected to the low-invasive colposuspension procedure with the use of the original biodegradable implant "LitAr". With the use of low-invasive colposuspension method the biodegradable implant has been placed on both sides from the bladder neck between the surfaces to be sutured. The change of the condition implants has been checked by means of MRI on the 4^{th}, 16^{th} and 30^{th} days after performing the procedure, and existed for three years.
Results: In the course of MRI research observed on the 4^{th} day there has been revealed hydration and the start of biodegradation of the material. By the 16^{th} day regenerative tissue has been formed on the implant place, hydration was less, and by the 30^{th} day there was no hydration at the place of implant. We were observing the process of healing the wound without complications for all the patients. All the patients could achieve continence without postoperative complications. There were 38 (92,7%) women satisfied with the results and have no incontinence three years after the procedure. Three (7,3%) note reduction of the sign incontinences.
Conclusion: These results of 3 years of observations have show that the introduction of the biodegradable implant into the bladder neck area has provided formation of the native connective tissue in the operation zone. There were no by-effects for the patient. Low-invasive access was effective for this procedure.