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DISPOSITION OF PELVICOL 12 MONTHS AFTER IMPLANTATION FOR PELVIC RECONSTRUCTION

Hypothesis / aims of study

The use of graft tissues to supplement pelvic reconstruction is becoming more common. Many tissues are being used including xenografts, allografts and autografts. There are no good data on the disposition of any of these grafts tissues after implantation in the human pelvis. The use of graft tissues to supplement pelvic reconstruction is becoming more common. Many tissues are being used including xenografts, allografts and autografts. There are no good data on the disposition of any of these grafts tissues after implantation in the human pelvis.

Study design, materials and methods

Patients underwent rectocele repair alone or in combination with other pelvic reconstruction procedures. Pelvicol was used to reconstruct the rectovaginal septum. 12 months following the surgery, 8 patients were asked to participate in a biopsy study at the rectocele repair site. All patients participated on a voluntary basis and received compensation for their participation. A 3mm punch biopsy was taken from the repair site, incorporating full-thickness of the recto-vaginal septum. Care was taken to not injure the rectum. A sample of normal vaginal mucosa and a sample of Pelvicol were also studied for cross-reactivity of the collagen stains. Porcine and human collagen localizations were performed by immunoperoxidase staining using polyclonal rabbit anti-porcine and anti-human Type I/III collagen antibodies on a Vantana Benchmark automatic stainer. Porcine antibody was diluted 15 times and human antibody was diluted 10 times.

Results

Both positive and negative control tissues stained appropriately with minimal cross reactivity of anti-porcine collagen antibody in normal human tissue or anti-human collagen antibody in the Pelvicol.

Interpretation of results

Both porcine and human collagen were visualized in all 8 biopsies. These collagens were intermixed in the tissue samples.

Concluding message

This study demonstrates the persistence of Pelvicol 12 months after implantation and the in-growth of human collagen into the dermal matrix.

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