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AUTOLOGOUS DERMAL GRAFT FOR PELVIC ORGAN PROLAPSE (CYSTOCELE)

Hypothesis / aims of study

We describe the use of autologous dermal tissue for treatment of pelvic organ prolapse. Established surgical methods for pelvic organ prolapse include tension-free vaginal mesh and laparoscopic sacrocolpopexy. However, many patients are anxious about foreign body insertion and laparoscopic surgery. We developed a new method of autologous dermal tissue transplantation for treatment of pelvic organ prolapse, which increases safety and effectiveness. Dermal transplantation is frequently used in plastic surgery and penile surgery. Dermal transplantation for pelvic organ prolapse utilizes an inlay graft. Blood flow is supplied from the uterine and mucosal sides of the bladder, and the engraftment rate is high. The present case is the first time dermal transplantation was used to treat pelvic organ prolapse(cystocele).

Study design, materials and methods

To evaluate the safety and effectiveness of autologous dermal tissue for surgical repair of pelvic organ prolapse(cystocele). The procedure was performed by adding dermal transplantation to cystocele/uterine prolapse surgery, which does not use conventional mesh, under general anesthesia. First, we resected the epidermis of abdominal skin and performed defatting of the dermis. Next, the vaginal posterior wall mucosa was longitudinally dissected and 2-0 Ti-Cron (nonabsorbable suture) was applied to the left and right sacrospinous ligament (two stitches a side; total four stitches). A vertical incision was made in the anterior vaginal wall, and 2-0 Ti-Cron was stitched to each side of the arcus tendineus fascia pelvis (total two stitches). The bladder was sutured with a 3-0 Vicryl three-needle horizontal mattress suture. The dermis was implanted on the bladder and anterior wall of the cervix and was lifted in the sacrospinous ligament and the arcus tendineus fascia pelvis. The posterior wall of the uterine cervix was lifted to the sacrospinous ligament. The patient was discharged on the fifth day after surgery and used a supporter for 2 months postoperatively, until the graft was firmly engrafted.

Results

No urinary complications or recurrence has been observed. Scarring is minimal at the site of dermal collection and patient satisfaction is therefore high.

Interpretation of results

Our results suggest that it is safe, effective, and efficient for treatment of pelvic organ prolapse(cystocele).

Concluding message

Use of autologous dermal tissue is straightforward and acceptable to patients.

Disclosures

Funding: no **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Ethics Committee of Toho University Omori Hospital **Helsinki:** Yes **Informed Consent:** Yes