intercourse and standing micturition with a functional neo-
urethra, and has minimal complications and donor site mor-
bidity. Metaidoioplasty and radial forearm flap phalloplasty
(RFFP) are the most common procedures for neophallus con-
struction despite no comparative studies of the procedures.

METHODS: A MEDLINE search for metaidoioplasty and
RFFP in female-to-male genital reconstruction was per-
formed with outcomes compared.

RESULTS: A total of 188 articles were identified; 7 articles
related to metaidoioplasty and 11 articles related to RFFP
met inclusion criteria.

In studies examining metaidoioplasty, average study size
and follow-up was 50.9 patients and 4.6 years (2 studies
did not report [NR] these metrics). 88% had a single-stage
reconstruction (1 NR), 87% reported a satisfactorily aesthetic
neophallus (4 NR), 100% reported erogenous sensation (3 NR),
no studies reported tactile sensation (7 NR), 51% of patients
were able to achieve sexual intercourse (4 NR),
average strictures/fistulae per patient was 0.28 (0 NR),
75% achieved standing micturition (3 NR), average overall
complications per patient was 0.43 (0 NR), and donor site
morbidity was 6% (0 NR).

In RFFP, study size and follow-up was 60.4 patients and
6.23 years (6 NR). No patients had single-stage reconstruc-
tion (8 NR), 70% reported a satisfactorily aesthetic neophal-
lus (4 NR), 69% reported erogenous sensation (6 NR), 77%
reported tactile sensation (9 NR), 43% were able to achieve
sexual intercourse (6 NR), average strictures/fistulae per patient
was 0.51 (4 NR), 75% achieved standing micturition (6 NR),
average overall complications per patient was 0.88 (3 NR),
and donor site morbidity was 11% (3 NR).

Comparing the groups, sample size (p=0.7722) and follow up
(p=0.1798) were similar. Compared to RFFP, metaidoioplasty
was significantly more likely to be completed in a single stage
(p<0.0001), have an aesthetic result (p=0.0002), maintain
erogenous sensation (p<0.0001) and have lower overall com-
promise rates (p=0.02). Outcomes for standing micturition
(p=1.000), urethral stricture/fistulae (p=0.08), donor site mor-
bidity (p=0.11), and ability for sexual intercourse (p=0.1061)
were similar; tactile sensation could not be compared.

CONCLUSIONS: Current literature suggests metaidoio-
plasty may more successfully achieve an ideal neophallus
than RFFP. High-quality studies with emphasis on patient-
reported outcome measures are required to more critically
evaluate female-to-male genital reconstruction.

Reliable Complex Abdominal Wall
Hernia Repairs with a Narrow Well-Fixed
Retrorectus Polypropylene Mesh: A
Review of over 100 Consecutive Cases

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INTRODUCTION: No consensus exists on the optimal
technique for repair of complex ventral hernias. Current
trends emphasize large meshes with wide overlaps and
minimal suture fixation, though reported complications
and recurrence remains problematic.1,2,3 The purpose of our
study is to determine outcomes for complex ventral hernia
repairs in a large cohort of patients utilizing a surgical con-
struct employing retrorectus placement of a narrow, mac-
roporous polypropylene mesh with up to 45 suture fixation
points for force distribution.

MATERIALS AND METHODS: A retrospective review
was performed for all patients undergoing ventral hernia
repair with retrorectus placement of midweight, uncoated,
soft polypropylene mesh by a single surgeon (G.A.D.)
between the years of 2010 and 2015. Patient characteristics,
surgical history, operative data, and postoperative course
were reviewed. Patients were administered a validated sur-
vey of pain and function (PROMIS).4

RESULTS: A total of 101 patients underwent hernia repair,
with a mean age of 56 years and a mean BMI of 29 m/
kg2(range 18–51 m/kg2). Patients had a median of 3 prior
abdominal operations (range: 0–9), with 44 patients present-
ing with recurrent hernias. 42 patients were VHWG grade 1,
40 grade 2, 17 grade 3, and 2 grade 4. There were no recur-
rences at a mean follow up of 14.2 months (range 5 days to 4.5
years). The SSO rate was 7.9% (3 SSIs, 2 seromas, 2 hemato-
mas, and 4 instances of delayed wound healing in 8 patients). 1
patient required reoperation for hematoma drainage. 5 patients
required readmission within 30 days. Postop patients showed
PROMIS pain interference, intensity, and behavior scores
below that of the general population, and global physical and
mental health scores on par with that of the general population.

CONCLUSION: A surgical construct employing a retrorec-
tus placement of a narrow macroporous polypropylene mesh
with up to 45 suture fixation points for force distribution can
achieve significantly better outcomes across a spectrum of
VHWG grade risk-stratified patients compared to current
strategies that employ wide meshes with minimal fixation.
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**The Use of Lightweight, Large-Pore Polypropylene Mesh Onlay in the Repair of Contaminated Abdominal Wall Defects: A Single Center Experience**

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**Background:** Most surgeons are reluctant to place synthetic mesh in contaminated abdominal wall repairs for fear of mesh infection. Biologic meshes are often used in this setting; however, these meshes lack long-term durability. In comparison to medium- and heavy-weight polypropylene mesh, the newer lightweight, large-pore polypropylene (LP-PP) meshes may provide the long-lasting, high-tensile strength of a permanent synthetic prosthesis with an improved resistance to developing infection. The authors present a single-center case series illustrating the safety and efficacy of using LP-PP mesh onlay in the repair of contaminated abdominal wall defects.

**Methods:** A retrospective review of patients who underwent abdominal wall reconstruction with lightweight, large-pore polypropylene mesh at a single institution between March 2009 and June 2015 was performed. Patient demographics, complications, and hernia recurrence rates were reported.

**Results:** Twenty patients were identified who underwent abdominal wall reconstruction with lightweight, large-pore polypropylene mesh in conjunction with a clean-contaminated (n=8), contaminated (n=10), or grossly infected (n=2) abdominal surgery. All meshes were placed overlying the anterior rectus sheath following fascial closure with either a unilateral or bilateral component separation. Thirteen patients had at least one risk factor for poor wound healing. Sixteen patients had uncomplicated post-operative courses. Of the four reported complications, two had seromas that resolved after needle-aspiration, and two had superficial infections that resolved after a course of intravenous and oral antibiotics. Of note, the two patients categorized as infected cases maintained an uncomplicated course. There were no mesh infections, readmissions, mesh removals, or hernia recurrences.

**Conclusions and Significance:** In contaminated surgical fields, abdominal wall repair with LP-PP in the onlay position may be performed with minimal wound-related morbidity and successful reestablishment of abdominal wall integrity. We believe that using PROLENE LP-PP as the mesh of choice for abdominal wall repairs in contaminated fields as an onlay results in successful closure of the abdominal wound, reestablishment of abdominal wall integrity, and minimal morbidity to the patient. This, in turn, will lead to a decreased number of readmissions with fewer returns to the operating room for recurrences and/or complications, and, ultimately, superior long-term outcomes. We aim to add to the growing body of literature that asserts the safe and reliable use of permanent synthetic LP-PP in the repair of abdominal wall defects in a contaminated field.