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INTRODUCTION:
Metoidioplasty presents creation of small phallus from hormonally enlarged clitoris, without possibility for sexual intercourse. Total phalloplasty includes creation of neophallus from an extragenital tissue, large enough to enable insertion of penile prosthesis and penetration during sexual intercourse. Usually, phalloplasty is followed as a procedure after metoidioplasty due to complexity of procedure. We evaluated advantages of combined phalloplasty and metoidioplasty as one stage procedure.

METHODS:
Between May 2007 and March 2011, 23 female transsexuals, aged 20 – 53 years (mean 29 years) underwent one stage phalloplasty combined with metoidioplasty. Surgery included: removal of internal/external female genitalia, creation of neophallus using microvascular latissimus dorsi free flap, clitoral lengthening and incorporation into the neophallus, urethral lengthening as well as insertion of testicle prosthesis into the scrotum created from joined labia majora.

RESULTS:
Follow-up was from 6 to 52 months (mean 22 months). Mean duration of surgery was 612 minutes (ranged from 492 to 769 minutes). The length of neophallus was ranged from 13–17cm. There was no partial or total necrosis of the phallus. Urethral fistula in two and stricture in three cases repaired 3 to 6 months postoperatively. In 17 cases, penile prostheses (10 malleable and 7 inflatable) were inserted during the first year after phalloplasty.

CONCLUSIONS:
Combined metoidioplasty and total phalloplasty is feasible and safe surgical procedure. The main advantage is complete reconstruction of neophallus that avoids multi-staged gender reassignment surgery in female transsexuals. Our preliminary results confirmed successful outcome.