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Introduction & Objectives: Aphallia is an extremely rare congenital anomaly and its' treatment is still controversial, even regarding gender assignment. Type of surgery and age for surgery are debated, due to quite insufficient literature data. We present our results in the treatment of three patients with penile agenesis.

Materials & Methods: From June 2016 until February 2018, 3 patients, aged 2, 3.5 and 5 years, underwent phalloplasty due to penile agenesis. They were all evaluated and diagnosed soon after birth. All three boys presented with descended testicles and perineal urethral opening. Phalloplasty was performed using lower abdominal wall skin flap, in all three cases. Skin flaps were designed and harvested to create an appropriately shaped and sized neophallus, in a good position. The tip of the neophallus was fixed to the abdominal wall skin to keep it elevated for the first three days after surgery. In that way, the tension was reduced, as well as the risk of flap necrosis. Donor site was closed by direct approximation in all cases.

Results: Follow-up ranged from 12 to 31 months. There were no complications related to the flap or the donor site. Satisfying aesthetic outcome was achieved in all cases, defined as a well-shaped and sized neophallus, and properly positioned as well. All parents reported happiness with the final outcome.

Conclusions: Creation of the neophallus in boys with aphallia is very important for their psychological and psychosexual development. An adequate age for surgery should be discussed with psychologists and parents. A lower abdominal wall skin flap presents a good and safe option for these patients in childhood, as a temporary phallus. However, creation of an adult-sized neophallus in adolescence is the next step. That is why a life-time follow-up of these patients is necessary.