

 SURGERY

First penis transplant in the USA

Vascularized composite allotransplantation (VCA) is performed in patients with severe injuries to complex organs, such as a hand or face. Now, a report of the first US experience of a penile VCA has been published.

The first penile VCA in the USA was performed by a multidisciplinary team at Massachusetts General Hospital, Boston, in a 64-year-old man who had previously undergone partial penectomy for penile cancer and was disease-free at 4 years. Preparation included extensive patient education and informed consent, cardiovascular, haematological and HLA assessment, as well as CT angiogram, diagnostic angiography and MRI of the pelvis and penis. The penile allograft was procured from a brain-dead donor.

Reconstructive transplantation included anastomoses of the urethra, nerves and vasculature of the corporal bodies, cavernosal arteries, deep dorsal vein, as well as a vein graft and a cadaveric acellular nerve allograft. Anastomosis of the external pudendal artery was not required for satisfactory perfusion. Immunological management at surgery and

for maintenance consisted of antithymocyte globulin, mycophenolate mofetil, tacrolimus and methylprednisolone.

At 2 days after surgery, haematoma evacuation was required. Tadalafil treatment for erectile conditioning was started from day 8, the catheter removed at 3 weeks, and the patient discharged on day 25. On day 28, an acute grade I rejection reaction was diagnosed, which was treated with methylprednisolone. On day 32 a grade III rejection reaction was diagnosed, which was treated with antithymocyte globulin and methylprednisolone, followed by decreasing doses of oral prednisone, resulting in complete resolution.

At 6 months after VCA, the patient had normal penile appearance and urinary function, as well as partial recovery of penile sensation and erectile function. In addition, he reported increased overall health satisfaction and an improved self-image.

Clemens Thoma

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