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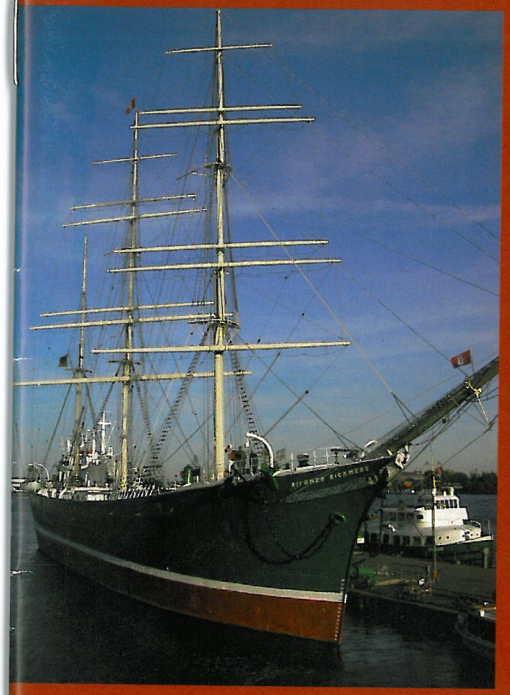

PROGRAM

Universitätsklinikum Hamburg-Eppendorf

in cooperation with ESGURS

Genitourinary reconstructive surgery

Excision of elliptic fragment of external layer of tunica albuginea as a new, little-invasive method of operative treatment of congenital penile curvature

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Introduction: After operations by Essed-Schroeder method many recurrencies appear (10 – 15%). After operations by Nesbit or Yachia methods recurrence rate is lower but corpora cavernosa are opened (tourniquet is used which, if used for too long time, may be harmful for erectile/sensory nerves and erectile tissue). Authors proposed less invasive procedure in which corpora cavernosa are not opened, only elliptic fragment of external (longitudinal) layer of tunica albuginea is excised (internal - transverse - layer is preserved) and both layers of the tunica are then sutured over invaginated internal layer.

Material and Methods: From October 2006 to August 2009 authors operated on 60 adult men with congenital penile curvature. Downward penile shaft and glans curvature was detected in 45 patients, lateral penile curvature in 19 patients, upward penile shaft and glans curvature in 6 patients. In 10 patients curvatures occured at least in two planes (i.e. downward and lateral).

Skin and tunica dartos were incised longitudinally on convex surface of curvature (except patients with hypospadias). Buck`s fascia was incised on lateral penis surfaces. After compressing base of penis with tourniquet artificial erection was produced by saline injection into cavernous body. Operation was always done on penis in flaccid state. In downward curvature dorsal neuro-vascular bundles were separated from the tunica albuginea and on dorsal penile surface (after stretching it by finger placed on ventral penile side) bilaterally elliptic fragments of external layer of tunica albuginea were excised. Tunica albuginea was sutured with single absorbable sutures which went through both layers of tunica approximating the edges of its external layer and invaginating internal layer of tunica albuginea. In all patients straigtening of penis was always checked by producing artificial erection. If curvature was still present next excisions of elliptic fragments of external layer of tunica and its suturing were done until penis was straight. In upward curvatures excisions were done on lower surface of penis on both sides of urethra. In lateral penile curvatures convex penile surface was shortened using above mentioned method. Antiandrogens were given orally 3 days before and 14 days after the operation.

Results: In all patients penis was straightened during operation. Follow-up examinations which were done from 3 to 33 months (average 15 months) after operation showed that in 58 patients penis is straight and in 2 recurrence of 15 degree curvature was detected which didn`t need further treatment. Disorders of superficial sensation on the glans, erectile dysfunction or disturbances of micturicion were not detected in any patient.

Conclusions: 1. Excision of external layer of tunica albuginea with subsequent invagination of internal layer by the sutures passing through both layers of tunica is effective method in the treatment of congenital penile curvature. 2. Operation is little invasive because there is no need for opening of the cavernous bodies, which diminish potential risk of complications. 3. For performing proposed

operation knowledge of stratified structure of tunica albuginea is necessary as well as delicate and precise operative technique.