URETHRAL DYSFUNCTION IN MEN OPERATED FOR UNDESCENDED TESTIS OR DISTAL HYPOSPADIA. RESULTS OF THE PILOT STUDY

Aims of the study:
Male urogenital abnormalities reported in a variety of animal species following prenatal or neonatal exposure to diethylstilbestrol (DES) are qualitatively comparable to those reported in DES-exposed men (e.g. cryptorchidism, hypospadia and reduced serum testosterone concentration). Urethral dysynergia has recently been added to the list of adverse effects observed in the rats and mice exposed developmentally to DES (Streng et al. unpublished data)

Methods:
The cases were gathered from the patient registers of two university hospitals. A questionnaire about urinary symptoms was sent to all men operated in childhood between years 1963-1973 for undescended testis or distal hypospadias and to as many men operated for appendectomy or indirect inguinal hernia. Men from hypospadia and control groups had higher symptom scores. Men with most symptoms from all groups were taken to clinical study

Results:
Results of the study were available in addition to 8 controls for 7 and 13 men operated for undescended testis and hypospadia, respectively. In the undescended testis, hypospadia and control groups the mean prostate volume was 18.6 (range 3.8-27.4), 18.6 (1.2-36.5) and 23.7 (15.8-29.3), the mean androgen/estrogen ratio 137 (44-267), 165 (70-270) and 217 (162), mean Q max 15.2 (26.3-10.3), 21.1 (41.6-7.3) and 27.7 (46.4-12.5) and the pressure area of the proximal prostatic urethra 0.160 (SD 0.1), 0.156 (SD 0.14) and 0.095 pixels (SD 0.6), respectively. There were more abnormal findings in voiding cystometry in undescended testis and hypospadia groups compared to control.
Conclusion

There was a trend for increased of the pressure area of the proximal urethra in the undescended testis and hypospadias patients in comparison to controls suggesting dysfunction of the proximal urethra among these men. This is supported also by lower mean Qmax in these groups. Lower androgen/estrogen ratio associated with a smaller prostate volume in these groups suggested, further, that androgen/estrogen balance may have an impact on function of proximal urethra in men.

Fig 1. Schematic illustration of male urethral pressure profile. The dotted area shows pressure area of the proximal urethra.

Reference