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ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2026, 43(2):268–269

Post-renal insufficiency secondary to phimosis

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Μετανεφρική ανεπάρκεια δευτερογενής σε φίμωση

Περίληψη στο τέλος του άρθρου

Key words: Management, Phimosis, Renal insufficiency

Phimosis is the impossibility of completely retracting the foreskin to expose the glans, and because of chronic infections, it may be associated with invasive penile cancer; the conservative or surgical management varies with the age group and disease severity.[1–6] The word "phimosis" is of Greek origin, literally meaning muzzling; around the 16 gestational weeks, the foreskin that is also completely formed, already covers the glans.[3] In physiological phimosis, the attempted retraction of the foreskin gives origin to an apparent constriction ring sited a few millimeters proximal to the preputial orifice.[3] Gairdner in 1949 first described the foreskin retractile in teenagers; phimosis affects 8% of six- to seven-year-olds, 6% of 10- to 11-year-olds, and 1% of 16- to 17-year-olds boys; and preputial adhesions common in adolescence, only 3% will have by 17-years of age.[3] Common treatments are topical steroid or silicone tube application for prepuce dilation; circumcision is the gold standard, while a laser procedure reduces the operative time.[1–6] The choice depends on the phimosis grade, surgeon's preference, and cost-effectiveness; but the neonatal male circumcision (NMC) is a yet controversial public health matter.[4,5] Based on a review of 58 relevant articles and 28 internet items, Morris et al found evidence that NMC is a low-risk procedure with immediate and lifetime health benefits.[4] A cross-sectional study on urogenital diseases before adolescence, including 1,429 patients with a mean age of 12 years (range: 11 to 14 years), showed 272 affected cases (14.8%); most often by balanopreputial adhesions (5.3%), varicocele (2.7%), or phimosis (1.8%).[1] The authors emphasized that a major number of longitudinal studies are required to more accurately evaluate the characteristics of urogenital disorders occurring in adolescents.[1] A Mendelian random analysis on the relation between phimosis and 26 urogenital diseases showed a predictive causal relationship with glomerulonephritis (p=0.00149), and IgA glomerulonephritis (p=0.00187); suggestive evidence associated with chronic nephritis (p=0.0481), acute nephritis (p=0.0058), and impotence (p=0.0035); kidney and ureteral stone (p=0.0069), urethral strictures (p=0.0050), prostatic hyperplasia (p=0.0242), and testicular hypofunction (p=0.0141) had genetically causal relationships.[2] The authors highlighted the need for more research to verify if these data are replicated in different scenarios to obtain better knowledge about the total mechanisms involved.[2] In this setting, a recent case study described the development of a classical post-renal insufficiency secondary to phimosis with the preputial adhesion in a 29-year-old patient.[6] Laboratory determinations showed leukocytes: 27,890/mm^3, platelets: 77,000/mm^3, urea: 416.9 mg/dL, creatinine: 12.43 mg/dL, amylase: 1,030.6 U/L, and lactate: 6.5 mmol/L. Imaging studies revealed bladder distension, hydronephrosis, and bilateral renal atrophy. With the urology care, he underwent a third-generation cephalosporin, hydration, and an incision of the foreskin to expose the glans and the passage of a bladder tube of delay.[6] The impressive total urine throughput by the drainage tube was 6.000 mL in 18 hours; there were clinical and laboratory improvements, the tube was removed on the day 5th at hospital discharge, with postectomy planned and outpatient nephrological follow-up.[6] The authors highlighted the need for urgent admission with intensive unity resources to treat the severe complications in the adulthood of the

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not previously corrected phimosis; also more research is required to better clarify the epidemiology and incidence of post-renal failure and systemic consequences of complicated phimosis without any previous management. The main target of the article was to enhance the awareness of parents and professionals who care the children on early detection of foreskin changes to avoid renal disturbances.[6]

Even a single case report can increase the interest and suspicion index about the less common conditions, favoring an early diagnosis and prompt adequate management.

ΠΕΡΙΛΗΨΗ

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Αρχεία Ελληνικής Ιατρικής 2026, 43(2):268–269

Η ελληνικής προέλευσης λέξη «φίμωση» σημαίνει την αδυναμία πλήρους απόσυρσης της ακροποσθίας για να αποκαλυφθεί η βάλανος του πέους και ενδέχεται να προδιαθέσει σε τοπικές χρόνιες λοιμώξεις, καθώς και στον καρκίνο του πέους. Η θεραπεία μπορεί να είναι συντηρητική ή χειρουργική, ανάλογα με την ηλικιακή ομάδα και τη σοβαρότητα της κάθε περίπτωσης. Στη φυσιολογική φίμωση, η απόπειρα συστολής της ακροποσθίας οδηγεί σε έναν φαινομενικό δακτύλιο σύσφιξης που βρίσκεται λίγα χιλιοστά κοντά στο στόμιο της ακροποσθίας. Στόχος των σύντομων σχολίων σχετικά με τον ρόλο της φίμωσης στη γένεση της χρόνιας νεφρικής ανεπάρκειας είναι η ενίσχυση της ευαισθητοποίησης των εργαζομένων στη γενική υγειονομική περίθαλψη αναφορικά με την έγκαιρη διάγνωση και την έγκαιρη σωστή διαχείριση.

Λέξεις ευρετηρίου: Διαχείριση, Νεφρική ανεπάρκεια, Φίμωση

References

1. AGÜERO G, EYMANN I, LAKATOS F. Prevalence of urogenital disease in male adolescent outpatient visits. A descriptive, cross-sectional study. *Arch Argent Pediatr* 2024, 122:e202310103
2. LI W, YU Y, LI H, YANG X, LI T. Assessing the genetic relationship between phimosis and 26 urogenital diseases: A Mendelian randomization study. *Front Endocrinol (Lausanne)* 2024, 15:1308270
3. McPHEE AS, STORMONT G, McKAY AC. *Phimosis.* StatPearls Publishing, Treasure Island (FL), 2024
4. MORRIS B, RIVIN BE, SHELDON M, KRIEGER JN. Neonatal male circumcision: Clearly beneficial for public health or an ethical dilemma? A systematic review. *Cureus* 2024, 16:e54772
5. ROSATO E, MIANO R, GERMANI S, ASIMAKOPOULOS AD. Phimosis in adults: Narrative review of the new available devices and the standard treatments. *Clin Pract* 2024, 14:361–376
6. TESSAROLO JL, MIRANDA LDF, BASTOS HD, HOFMANN EL. Post-renal insufficiency secondary to phimosis with preputial adhesion in adults: Case report. *Rev Fac Ciênc Méd Sorocaba* 2024, 26:e64313

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