

## 骑跨伤后尿道阴囊憩室伴多发巨大结石 1 例

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**[摘要]** 尿道憩室是一种位于尿道周围并与尿道相连的囊性病变,在男性中少见。尿道憩室多为后天形成,尿道损伤为其原因之一。骑跨伤多可导致球部尿道损伤,由骑跨伤引起的尿道损伤在经过及时的治疗后很少会发展为尿道憩室。因骑跨伤未得到有效治疗而形成尿道憩室的报道国内外少见。现报道 1 例骑跨伤后尿道阴囊憩室伴多发巨大结石患者。

**[关键词]** 骑跨伤;尿道憩室;结石;并发症

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### Urethral diverticulum with multiple giant calculi in scrotum secondary to straddle injury: a case report

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**Abstract** Urethral diverticulum is a cystic lesion located around the urethra and connected with the urethra. It is rare in men. It mostly occurs for acquired reasons, and straddle injury is one of them. Urethral injury caused by straddle injury rarely develops into urethral diverticulum after prompt treatment. Urethral diverticulum due to straddle injury without effective treatment is rarely reported. We reported a case of urethral diverticulum with multiple giant stones in the scrotum after uncured straddle injury.

**Key words** straddle injury; urethral diverticulum; stone; complication

#### 1 病例资料

患者,男,70岁,2021年5月10日因“骑跨伤20年,右侧阴囊肿痛伴皮肤漏尿10年”入院。患者于入院前20年骑跨伤导致阴茎、阴囊外伤,当地医院予抗感染、止痛等对症治疗。当时因患者可自行排尿未行导尿管置管。患者疼痛减轻后出院。后患者右侧阴囊体积逐渐变大并肿痛,于入院前10年出现右侧阴囊皮肤反复漏尿。体检:尿道外口无狭窄、红肿及脓性分泌物;右侧阴囊明显肿大,右侧阴囊皮肤可见直径约2mm瘘口,并尿液样液体流出(图1);右侧阴囊内睾丸及精索上方可触及质硬肿块及泥沙样结石物质。术前检查:尿常规示白细胞定量1245个/ $\mu$ L、红细胞127个/ $\mu$ L;阴囊彩超示右侧阴囊内多发巨大结石形成(最大直径12cm);CT示阴囊内增厚囊腔形成,其内可见结石(图2);尿道逆行造影示造影剂在阴囊内滞留,尿道-阴囊瘘(图3)。术前诊断:①阴囊内尿道憩室

伴结石形成;②尿道憩室-皮肤瘘;③泌尿道感染。

于全身麻醉下行“阴囊探查术+尿道憩室及结石切除术+尿道修复术”。手术过程患者取膀胱截石位,术中经尿道外口置入一次性F10单腔导尿管,置入约8cm后阻力明显,可见淡黄尿液引出。切开右侧阴囊皮肤、皮下肉膜,于阴囊内、睾丸及精索前上方见直径约15cm“憩室囊”,该“憩室囊”位于睾丸及精索鞘膜脏层与阴囊肉膜之间。切开囊壁后内可见导尿管及结石(图4a)。于此“憩室囊”后方仔细分离,切除该“憩室囊”,术中可见该尿道憩室有1个“进尿口”和2个“出尿口”。“进尿口”与球部尿道相连;而其中一“出尿口”与阴茎部尿道相连,另一出尿口与阴囊皮肤相通,形成皮肤瘘。自尿道外口重新置入F22导尿管至膀胱内,在导尿管引导下缝合尿道恢复其连续性(图4b)。患者术后恢复良好,术后病理:符合尿道憩室,上皮显著磷化及轻度不典型增生,周围组织呈慢性炎症及纤维组织增生。于手术20d后拔除导尿管,排尿通畅,阴囊皮肤愈合良好。术后随访6个月,患者排尿通畅,阴囊肿痛消失,无尿频、尿急、排尿困难等不适。

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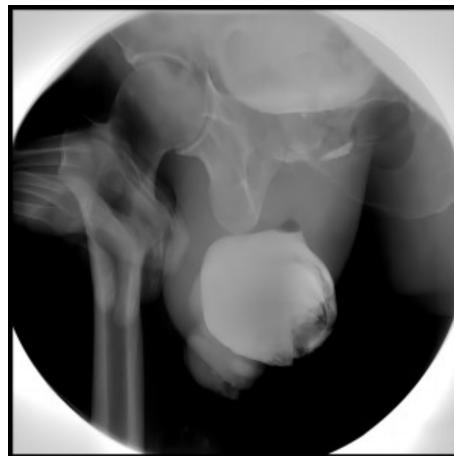
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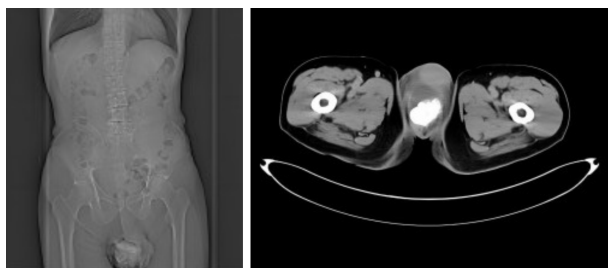
右侧阴囊内质硬肿物,伴皮肤瘻口,瘻口直径约 2 mm。

图 1 体检示阴茎肿物



造影剂在阴囊内滞留,示尿道-阴囊瘻。

图 3 患者逆行尿道造影图像

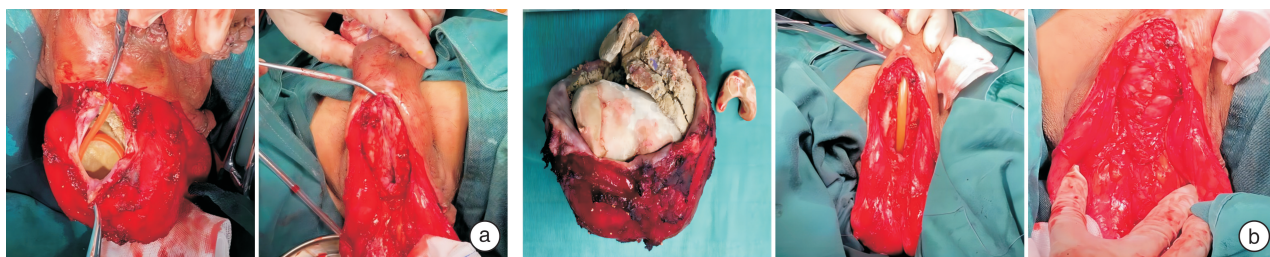


阴囊内增厚囊腔形成,其内可见结石,最大直径约 12 cm。

图 2 CT 图像

## 2 讨论

尿道憩室是指尿道周围形成与尿道相连通的囊性腔隙,男性罕见发病<sup>[1]</sup>。病变通常发生在阴茎和阴囊的交界处或球部尿道<sup>[2]</sup>。可分为先天性(原发)和获得性(继发)两种,近 90%的尿道憩室为获得性,可因截瘫导致的尿道功能不良引起,也可因尿道梗阻、创伤、感染、尿道周围组织病变导致尿道损伤破坏后形成<sup>[3-5]</sup>。而跨骑伤是尿道损伤的重要原因之一<sup>[6]</sup>。



a:阴囊探查可见巨大尿道憩室,内可见导尿管及巨大结石(主体结石 1 枚,大小 12 cm×9 cm×7 cm,表面质地松软,石核坚硬。主体结石周围散在泥沙样结石附着),切除尿道憩室及结石;b:导尿管引导下缝合尿道,恢复其连续性。

图 4 手术过程

男性获得性尿道憩室的临床表现包括:①反复的泌尿道感染,憩室较小者一般症状较轻或无明显症状,憩室较大常导致引流不畅和持续反复的感染,可于阴茎腹侧或阴囊触及液性包块;②排尿困难:尿液进入憩室后压迫尿道,造成尿液排出受阻,可引起排尿困难、尿潴留;③长期感染和憩室内尿液滞留可形成结石;④前尿道憩室如感染严重可形成周围组织及皮肤损伤,形成憩室-皮肤瘻<sup>[1,3]</sup>。

针对本例患者,分析其尿道憩室形成的原因如下:骑跨伤导致球部尿道损伤,尿道损伤后尿液外渗、感染,未能及时引流,周围组织机化形成憩室。当患者排尿时,尿液先流入憩室,使其膨胀,憩室内高压进一步使憩室变大,尿液在憩室内滞留,引起

反复感染,并结石形成,感染及结石刺激形成憩室-皮肤瘻。

总结本例患者的诊疗经过:对于外伤所致尿道损伤,应及时处理,充分引流尿液,并进行抗感染治疗,若发现尿道损伤及时行尿道修补,恢复其连续性<sup>[6]</sup>。以避免因治疗不及时引起的尿道憩室。对于已形成的尿道憩室,详细询问患者病史,并结合 CT、尿道造影等检查分析其形成原因。手术是治疗此类患者的有效手段,术中应该完整探查憩室,将憩室完整切除并恢复尿道的连续性<sup>[7]</sup>。本例患者术后病理结果符合尿道憩室,术后生活质量改善明显,疗效确切满意。

利益冲突 所有作者均声明不存在利益冲突

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