Skene's gland cyst after mid-urethral sling : Case Report

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ABSTRACT

Background: Skene's gland cyst formation is a rare complication that typically do not follow after midurethral sling placement. To our knowledge this is the first reported case in literature of a Skene' s gland cyst that occurred after this procedure.

Case report: A 51 years old female presented with dyspareunia and persistence of stress urinary incontinence after transobturator tape sling procedure (TOT). Physical examination revealed a periurethral mass apparently circumscribing the urethra. Due to the surgical history of the patient, transperineal ultrasonography and pelvic MRI were performed and a probable diagnosis of obstructed Skene gland was established. Surgical management started with conservative management and needle aspiration that were ineffective due to the cyst recurrence and a second time partial excision and marsupialization had an excellent clinical outcome.

Conclusions: Skene gland cysts represents a rare complication following vaginal surgery. Treatment outcome of this entity is based on resolution of clinical symptoms. Unroofing of the cystic lesion is recommended in cases proximal to the urethral sphincter to decrease the risk of urinary incontinence..

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Introduction:

Skene's glands are found on each side of the urethral meatus. Skene's gland cysts develops in infants as congenital anomalies, however they are rarely seen in adults. Infection is the most commonly reported cause, followed by obstruction of the gland ducts. [1,3] For the differential diagnosis of anterior vaginal wall masses, Skene's duct cysts Bartholin gland cyst, Gartner duct cyst, cystocele, ectopic ureterocele, urethral diverticulum, urethral prolapse, or malignancy (urethral tumor, vaginal tumor) should be considered. [1,2]

Case presentation

We present the case of 51 years old women with a history of transobturator tape sling procedure (TOT) for stress urinary incontinence in January 2021. Three months following the procedure, she presented in our clinic for persistence of urge urinary incontinence and dyspareunia. At clinical examination a periurethral mass was identified, bulging the urethra to the left, and a small synthetic material erosion (less than 5 mm2). Transperineal ultrasonography identified a transonic mass with internal septs that circumscribed the urethra. Fig 1.



Fig 1 – Periurethral cyst – transperineal ultrasonography aspect

Pelvic MRI revealed a multiloculated, periurethral cystic-like fluid mass (42/25/23 mm) and suspected a Skene's gland cystic dilatation due to gland outlet obstruction. Fig 2,3

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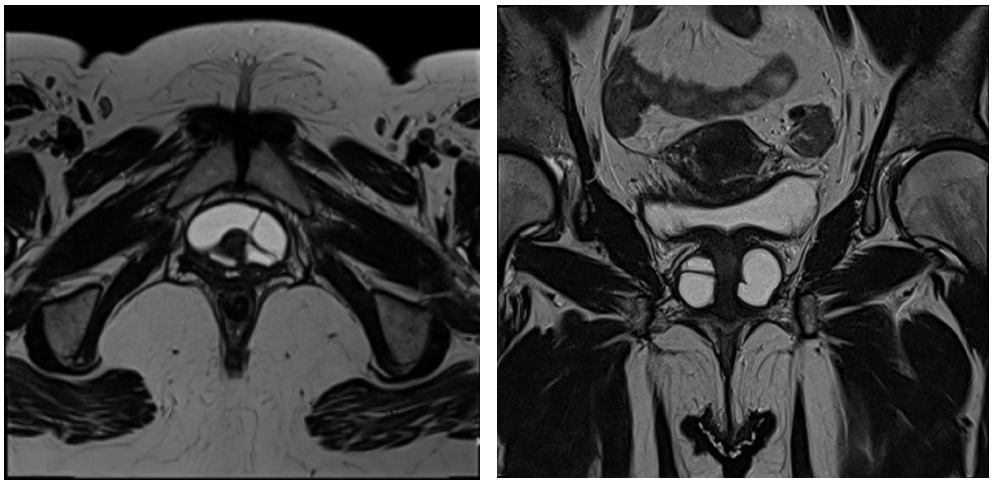


Fig 2,3. Pelvic MRI aspect (left – transversal section, right – frontal section)

Urethrocystoscopy did not revealed any notable lesions, vaginoscopy confirmed the small mesh erosion). There was no UTI or vaginal infection.

Ultrasound guided needle aspiration of the cyst was performed under local anesthesia. Bacteriological and cytological analysis of cyst fluid were negative. Clinical symptoms were significantly improved after needle aspiration and the patient was discharged, but the symptoms and cyst reappeared after three months. Under regional anesthesia, a paraurethral vertical incision on the vaginal wall and partial dissection of the cystic gland was performed. The cavity was explored using flexible 18 Fr cystoscope, no mesh extrusion on the cystic wall was identified, and marsupialization with a 10 Fr Foley catheter of the Skene's gland cyst was performed. Fig 4. Complete excision was considered inappropriate due to the proximity of the sphincter and post-surgical fibrosis after the previous vaginal surgery.

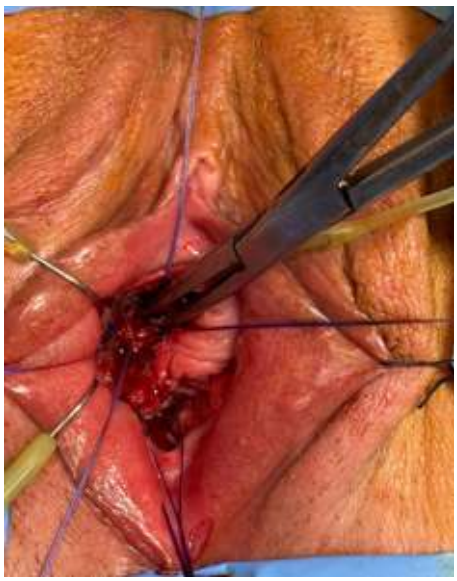


Fig 4. Intraoperator view of the gland opening

Six months follow-up MRI revealed complete resolution of the periurethral cystic image. After 4 weeks from the procedure, patient was asymptomatic and clinical examination revealed that the cystic walls remain collapsed. Fig 5. Histological examination – cystic fibrotic wall tissue, stripped off epithelium. Fig 6.



Fig 5. Postprocedural aspect

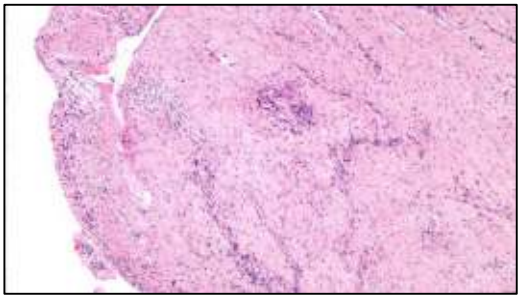


Fig 6 – Microscopy H-E 10x

Discussion

Skene's gland cyst is a relatively rare entity. Presenting symptoms may include urethral pain, dysuria, dyspareunia, recurrent urinary tract infection, asymptomatic mass and voiding symptoms. [2]

For the presented case the initial diagnosis of a Skene's gland cyst was unclear due to the surgical history of the patient and the high index of suspicion for a late postoperative complication, taking into account the presence of mesh erosion. Perineal ultrasound and MRI include Skene gland cyst as a possible diagnosis but only histopathological examination of the excised cystic wall confirmed the suspicion. In the presented case needle aspiration was the first chosen treatment option with negative results at bacteriological and cytological analysis that excluded a post-surgical late complication. Surgical management of the Skene's gland cysts include marsupialization, partial excision and total excision. All surgical treatment options appear to show good outcomes.[3] To our knowledge, this is the first reported case of a Skene's gland cysts as a complication after mid-urethral sling placement - TOT procedure and the management was driven by the clinical course of the patient. Due to the rarity of the disease and its presentation as a possible complication following vaginal surgery, we considered to report this case to the urological community.

Conclusions

Skene gland cysts represents a rare complication following vaginal surgery. Management of this entity is unknown and is based on resolution of clinical symptoms. Unroofing of the cystic lesion is recommended in cases proximal to the urethral sphincter to decrease the risk of urinary incontinence.

References

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