A -16year Remained UroLume Stent without any Complication; a Case Report

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Lumen diameter reduction which is called urethral stricture has several causative agents including iatrogenic, inflammatory, traumatic, and idiopathic factors. The main treatment options are transurethral or open surgical interventions. The UroLume which was introduced around 33 years ago is an intraurethral stent and as a temporary treatment approach has a maximum 9-month durability, but here we present the first ever reported forgotten 16-year remained UroLume without any complication.

INTRODUCTION

Urethral stricture can be defined as lumen diameter reduction in virtue of ischemic spongiofibrosis[1]. The causes are categorized into 4 groups: iatrogenic (like transurethral resections, prolonged catheterization, cystoscopy, hypospadias repairs, and prostatectomy), inflammatory (such as infection and post-infectious inflammation and Lichen sclerosis), idiopathic and traumatic[2]. Urethral stricture is a relatively common disease in men with an associated prevalence of 2-6 per 1000 males, or 0.6% of the at-risk population, who are typically older[3]. Current treatment mainly are classified into transurethral (stent or balloon dilation, internal urethrotomy) and open surgical (stricture resection and anastomosis, urethroplasty, and perineal urethrostomy)[4]. The UroLume urethral stent (American Medical Systems) has been introduced commercially since 1988 for the treatment of urethral stric-

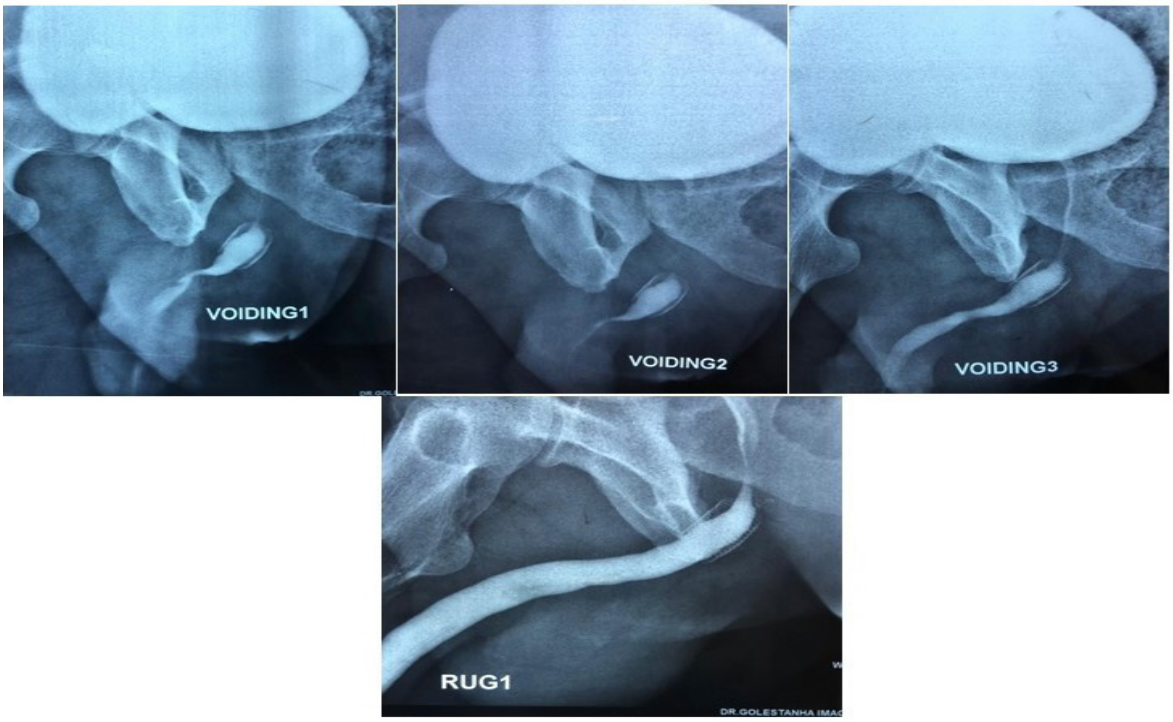

Figure 1. Voiding cystogram and retrograde urethrogram of the patient.

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Received June 2021 & Accepted December 2021

ture in men with benign prostatic hyperplasia. Recent studies have identified long-term complications such as urethral restenosis, urethral pain, recurrent urinary tract infections, and stent migratio[n](5). We present a case who underwent UroLume stent therapy for urethral stricture 16 years ago and the applied Urolume has been thoroughly wrapped with mucosa. This case is the first ever reported forgotten long-term stayed UroLume according to our electronic search at time of submission.

CASE PRESENTATION

A 53-year old man presented in the urology clinic with the chief complaint of mild obstructive symptoms. He wasn't on any long-term preventive medication such as vitamin C to stop stone or incrustation formation. He had omitted the regular follow-up himself due to no urinary symptoms to urge him for stent removal. On further investigation, the international prostatic symptom score (IPSS) was calculated and the result was 19. The patient had experienced urethral trauma 29 years ago and underwent UroLume stent insertion 16 years ago. Recent cystoscopy revealed that the stent in bulbar urethra has completely covered by urothelium and there were some mucosal erosions throughout the urethra. He hadn't uroflowmetry evaluation before and there wasn't a significant post voiding residual (PVR) in sonography. Voiding cystourethrography (VCUG) had a normal pattern without diverticula and a neurogenic bladder was not found. Retrograde Urethrography (RUG) showed the Urolume pattern. In the preinjection scout film of the urethra and after contrast injection, the urethra was completely open and no stricture, kink, or other abnormality was seen (**Figure 1**). Finally, he was diagnosed with benign prostatic hyperplasia and underwent therapy by tamsulosin 0.4 mg daily and we informed him about our intention for reporting his unusual case, unanimously. He was re-evaluated two weeks later and the IPSS had not changed significantly. So, he was a candidate for stent removal but at that time we didn't remove the stent because the patient didn't come back for further work up.

DISCUSSION

The patient presented with urethral stricture and had gone through stent dilation therapy but stent epithelization was discovered and cystoscopy revealed that the urethra has been open since then.

The UroLume endoprosthesis is a non-magnetic, self-expanding urethral stent employed to maintain the urethral lumen in cases of subvesical obstruction[6]. It can be adopted for recurrent bulbar urethral strictures, benign prostatic hyperplasia (BPH), and detrusor-external sphincter dyssynergia[7]. It is thought to be a good choice in old patients with BPH and urinary retention and simultaneous high surgical risk[6]. North American Multicenter Trial has announced complications of this stent as migration, encrustation, epithelialization, pain, and irritative voiding symptoms that require removal of the stent[7].

A retrospective study of forty-five men who underwent placement of the UroLume stent with an average follow-up of 55.8 months evaluated urinary continence, ingrowth of the UroLume stent, need for repeat operations, and complications related to this treatment including artificial urinary sphincter (AUS) erosion. 78% of patients had simultaneous or subsequent placement of an AUS. Ingrowth was seen in 36% and AUS erosion in 19.5%. Of the 16 patients treated for ingrowth, the average number of treatments was 2.7 per patient. There was no association between treatment for ingrowth and the rate of AUS erosion[8].

CONCLUSIONS

Despite the average 9-month competency of Urolume stents reported in previous articles, we have observed a 16-year efficacy and no complication in this patient. We suggest performing a further thorough investigation to find out the background factors and features in this case responsible for stent protection. Our limitations in this report were no uroflowmetry available and also, we couldn't take the cystoscopy photograph.

CONFLICT OF INTEREST

The authors report no conflict of interest.

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