INTRODUCTION
Urethral stricture is a complicated disease, a therapeutic challenge, which is still drawing attention due to its incidence and consequences. Following reconstruction of the urethra, urethroplasty requires efficient derivation and meticulous technique. To obtain a quality neourethra without inaccuracy or approximation in its execution.(1)

Plastic reconstruction has been long tested, using many techniques that have been perfected over time. More recently, buccal mucosa graft gained the status of standard surgical approach in urethral strictures.(2)

Buccal mucosa graft was first described by Humby in 1941. It has become an ideal substitute due to its easiness in harvesting, surgical characteristics, lack of hair, compatibility to a wet environment and survival.(3)

There is controversy as to whether buccal mucosa graft should be placed dorsally or ventrally. On the penile urethra, most experts would place the graft on the dorsal side and on the bulbar one, they would place it ventrally or dorsally-ventrally even laterally, depending on the clinical situation. Multiple studies have shown that both dorsal and ventral buccal mucosa graft have good blood supply and mechanical support.

PURPOSE
The objective of this paper is to bring into discussion the advantages and disadvantages of buccal mucosa as biological substitution material in urethral plasty through the experience of the Urology Clinic of Sibiu.

METHODS
We conducted a clinical trial on a clinical series of 41 patients who were diagnosed with recurrent urethral strictures in 2009-2013 and operated using buccal mucosa for urethral lumen augmentation. Urethral strictures were evaluated in terms of etiology, topography and length. The research has shown that buccal mucosa graft is the golden standard in urethral reconstruction with remarkable biological, histological and mechanical properties. Buccal mucosa graft urethroplasty requires a well-trained surgical team with multidisciplinary skills. The accomplishment of urethroplasty with two teams halves the secondary operating time and the complications related to anesthesia. The surgical technique suitable for the type of urethral stricture is an essential requirement in order to achieve a functional and esthetic result.

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CLINICAL ASPECTS

symptoms of lower urinary tract, symptoms of hesitancy, interrupted urinary flow, decreased urine stream pressure, incomplete emptying of the bladder, nocturia, alguria or acute urinary retention.

The diagnosis was based on the clinical examination, uroflowmetry, retrograde and voiding urethrogram, exploratory urethral catheterization, urinary tract ultrasonography and urethrocytoscropy.

Postoperative results were assessed clinically (patient satisfaction) and through uroflowmetry, retrograde and voiding urethrogram and urethrocytoscropy.

RESULTS

We identified 17 patients (43.46%) who presented post-traumatic strictures, 19 patients (46.34%) with postinflammatory strictures including lichen planus and 5 patients (12.19%) with strictures due to the surgical postcorrection of hypospadias. The average length of the urethral stricture segment was of 4.2 cm.

The location of the stricture was on the anterior penile urethra in 14 cases (34.14%) and on the posterior bulbar urethra in 27 patients (65.86%).

Buccal mucosa harvesting was conducted at vestibular level in 38 patients (92.68%) and at lingual level in 3 (7.32%).

Urethroplasty was performed in dorsal onlay graft manner in 23 cases (56.1%), ventral onlay graft in 9 cases (21.95%), dorsal inlay graft in 6 patients (14.63%) and tubularization in 3 patients (7.32%).

Patients follow-up was 7.2 months.

Functional and aesthetical good results were obtained in 34 patients (90.3%), consisting of easy urinations and urinary stream preserved during the follow-up period of time.

Immediate complications were represented by wound dehiscence in 3 cases (7.3%) and urinary fistula occurred in 1 patient (2.4%). Late complications were represented by strictures at proximal or distal anastomosis level occurred in 7 patients (17.1%) who required urethral dilation or internal optical urethrotomy.

DISCUSSIONS

The treatment of urethral strictures includes numerous surgical techniques. The urologist must be familiar with all of these techniques in order to cope with any urethral strictures.(4)

Substitution urethroplasty is the surgical procedure, which, in order to solve the urethral strictures, uses the tissue transfer. These tissues can benefit from vascular pedicle and support tissue of the donor area (flaps or flap sites) or without vascular connections with the donor area (graft).(5)

Buccal mucosa graft is applied in the case of penile bulbar urethral stricture, or in the case of strictures longer than 2 cm, regardless of location.(6)

Buccal mucosa graft was imposed due to the advantages it presents: dense vascular network, large number of epithelial layers, better adaptation to the wet environment and increased resistance, both mechanical and regarding the infections.(7) Buccal mucosa graft has a thick epithelium rich in elastin, which makes it durable and easy to handle. Lamina propria is thin compared to that of the bladder mucosa and skin, facilitating unification and neovascularisation.(8)

Graft harvesting can be done at jugal, vestibular or lingual level, depending on the length and location of the urethral defect.

Vestibular level graft (figure no. 1) has the advantage that it is thick, it can be harvested on a considerable length (7cm / 2 cm) (figure no. 2) and allows the closure per primam of the resulted defect.(9)
Figure no. 4. Placing the buccal mucosa graft

Foley’s probe is left in place for 3 weeks.

Postoperatively, for the patient’s comfort and pain control, ice packs at vestibular and perineal level can be applied. Chlorhexidine mouth rinse is to be used 4 times per day after meals. Food can be resumed immediately after surgery with liquids, then resume the regular diet. Antibiotic prophylaxis is carried out until urethra-bladder probe ablation in combination with NSAIDs.

Postoperative follow-up consists of examining the patient in order to capture any obstructive symptoms objectified by uroflowmetry and ultrasound measurement of the postmiccional residue.

CONCLUSIONS
1. Buccal mucosa graft is the golden standard in urethral reconstruction with remarkable biological, histological and mechanical properties.
2. Buccal mucosa graft urethroplasty requires a well-trained surgical team with multidisciplinary skills.
3. Performing urethroplasty with two teams halves the secondary operating time and the complications related to anesthesia.
4. The surgical technique suitable for the type of urethral stricture is an essential requirement in order to achieve a functional and esthetic result.

REFERENCES