

# Actas Urológicas Españolas

www.elsevier.es/actasuro



## LETTER TO THE EDITOR

### Slings: why so many?

### Cabestrillos: ¿por qué tantos?

Dear Editor,

In the last decade, slings became the technique of choice for the treatment of stress urinary incontinence (SUI). It is curious that a concept from the beginning of the last century has become, we could say, recently extended in the urological environment. Several factors determined the popularization of slings, especially the fact that needle suspension did not resist the test of time,<sup>1</sup> and furthermore, the variety of changes in paradigms and the evolution itself of biomaterials.

The perfectioning of surgical techniques resulted in minimally invasive techniques that achieved the same results as autologous slings, with a decrease in morbidity, surgical time and improvement in post-surgical recovery. Thus, slings, which were initially barely indicated for the most complex cases of urinary incontinence, principally type III SUI, became the technique of choice in all cases, with a decrease in morbidity due to the good long-term results. The presence of cystocele, which can be repaired concomitantly, does not contraindicate the use of slings.

McGuire introduced the concept of posterior tension-free support of the urethra. This meant the end of the idea that advocated correcting SUI by placing the bladder neck in a high retropubic position, a concept that was responsible for a significant number of urinary dysfunctions and a high enterocele rate. Thereafter came the integral theory, which among its postulates, advocated the creation of neoligaments with synthetic meshes and spoke of the value of pubourethral ligaments. This theory spread the concept of tension-free correction even more, which led to the simplification of the technique, to eliminate the use of autologous fascia and also sutures to maintain the sling in position, also creating the concept of self-fixating sling. Beyond this, the placement of mesh at the middle urethra position significantly helps to decrease post-surgery urinary retention.

Delorme developed the transobturator sling using a minimally invasive approach and emphasis was laid on the principles of biosurgery, such as the suture-free reinforcement of urethral-pelvic ligaments with non-filamentous polypropylene mesh. Transobturator slings are easy to put in place and result in very low morbidity. As regards readjustable slings, the presence of silicone multi-cone columns allowed adjustments in both directions for the first time. The columns lead to the formation of a fibrous capsule that functions as a tunnel inside which the sling can be readjusted. To this end, it suffices to identify one of the ends of each column and to pull it in the desired direction.

Why so many slings? The explosion of slings is a multifactor phenomenon. According to Stanton,<sup>2</sup> the ideal sling must be resistant, available, readjustable and removable. From a scientific point of view, a meta-analysis carried out under the auspices of the American Urological Association brought to light the bad long-term results of corrections performed vaginally and through needle suspension.<sup>3</sup> The results obtained with retropubic colposuspension and slings are comparable in the long-term. From a clinical point of view, minimally invasive slings signify a breakthrough in surgical techniques, at the same time reducing morbidity, surgical time, convalescence and the learning curve. Undeniably, the role of biotechnology in the creation of new materials and new instruments is also influential. This explains the quantity of slings that exist; but... why so many? The answer is because until now, there has been no evidence of which is the best.

## References

1. Palma PCR, Ficetto CLZ, Dias Filho AC, Dambros M, Thiel M, Netto Jr NR. Is anterior vaginal wall sling a good alternative for intrinsic sphincter insufficiency? *Int Braz J Urol.* 2002;28:349-55.
2. Stanton SL, Brindley GS, Holmes DM. Slings for urethral sphincter incompetence in women. *BJOG.* 1985;92:747-50.
3. Leach GE, Dmochowski RR, Appel RA, Blaivas JG, Hadley HR, Luber KM, et al. Female stress urinary incontinence clinical guidelines panel summary report on surgical management of female urinary stress incontinence. *J Urol.* 1997;158: 875-80.

P. Palma<sup>a,\*</sup>, R. Capmartin Salinas<sup>b</sup>

<sup>a</sup>*Profesor Titular de Urología, Sección Urología Femenina, División Urología, Facultad de Ciencias Médicas de la Universidad Estatal de Campinas (UNICAMP), São Paulo, Brazil*

<sup>b</sup>*División Ginecología-Urología Femenina y Piso Pélvico, Hospital Universitario de San Ignacio, Portificia Universidad Javeriana, Bogotá, Colombia*

\*Corresponding author.

E-mail: ppalma@uol.com.br (P. Palma).

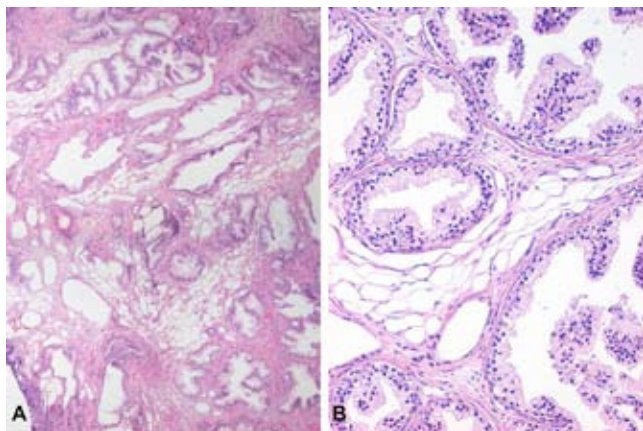
## Benign prostate hyperplasia with fibro-fatty stromal metaplasia

### Hiperplasia benigna de próstata con metaplasia estromal fibroadiposa

Dear Editor,

Benign prostate hyperplasia is a process of high incidence and prevalence that tends to affect males aged as of fifty years. From a histological point of view, it consists of the presence of hyperplastic nodules comprising epithelial (glandular), stromal (fibromuscular) or mixed elements. The presence of metaplasia in the epithelial component is a rare finding in normal prostate, hyperplastic or tumour tissue. The existence of adipose tissue in prostate biopsies is an exceptional finding and, in the majority of the cases is associated with extraprostatic infiltration of prostate carcinoma.<sup>1</sup>

In a sample from a transurethral resection of a 67 year old patient with prostatic symptoms, we had the opportunity to observe benign prostate hyperplasia with extensive areas of fibro-fatty stromal metaplasia, a finding not described in literature to date. For this reason, we abandoned the search for this entity and we want to share our reflection with the readers of the journal that you direct.



**Figure 1** (A) Benign prostate hyperplasia with areas of mature adipose tissue (HE  $\times 20$ ). (B) Hyperplastic fibroadipose tissue between prostatic glands (HE  $\times 100$ ).

The microscopic aspect of benign prostate hyperplasia is very varied<sup>1</sup> and predominantly epithelial, stromal and mixed patterns can be found. Depending on their histological characteristics, hyperplastic nodules can be stromal, fibromuscular, muscular, fibroadenomatous and fibromioadenomatous. On the other hand, metaplasia is a process often described in normal epithelial prostatic, hyperplastic and neoplastic tissue. Transitional metaplasia is a frequent morphological alteration in prostate biopsies, characterized by the presence of elongated ovoid nuclei that occasionally contain longitudinal nuclear cleavages. It is also quite usual to find areas of scaly metaplasia in prostate biopsies, especially in areas close to prostate infarction and following hormonal therapy or radiotherapy. Mucinous metaplasia of the glandular epithelium has also been described, where the presence of tall, column and mucous-secreting cells has been noted in prostate acini, and Paneth-type cell metaplasia.

The stromal cells of benign prostate hyperplasia, fibroblasts and smooth muscular cells also present a varying morphology. On occasions, the stroma may comprise undifferentiated mesenchymal cells or immature fibroblasts. The presence of extensive areas of fibroadipose tissue within the benign prostatic stromal tissue, as we have observed, is an extraordinary finding. In our opinion, it is possible that the origin of the adipose tissue is metaplastic and originates from primitive stromal cells with a differentiation capacity. This type of metaplasia has been described in other locations, some of which are also of interest to urologists.<sup>2</sup> Alternative explanations would be the intravisceral extension of the periprostatic adipose tissue or the hyperplasia of intraprostatic adipose tissue. To date, some works have shown the existence of minimum amounts of adipose tissue inside the prostate gland. Cohen et al found few adipose remains in 2 of 151 radical prostatectomies, both of Polynesian origin.<sup>3</sup>

This observation may seem hardly important; however it is so from a clinical point of view. The presence of adipose tissue in prostatic biopsies is extremely rare. The differential diagnosis of this finding must be made with the infiltration of periprostatic fat due to prostate carcinoma, and with the intraprostatic extension of a well-differentiated liposarcoma. For this reason we believe that clinical urologists must know of this entity.