

PRIMARY BLADDER NECK OBSTRUCTION (PBNO): A CAUSE OF LUTS IN YOUNG MEN

Lower urinary tract symptoms (LUTS) are quite common in young men, though not as common as in elderly. Until recently, the conditions causing LUTS like primary bladder neck obstruction (PBNO), bladder pain syndrome (BPS), urethral syndrome, etc. were less discussed and remained unidentified. Among them, the PBNO, is now thought to be the most common condition in young men presenting with LUTS. Patients with PBNO are frequently misdiagnosed and treated empirically with antibiotics or anticholinergics, without diagnostic evaluation. The condition has a variable natural history and can result in relatively severe voiding dysfunction with long term consequences if goes unrecognized.

Primary bladder neck obstruction (PBNO), first described by Marion[1], is a condition in which the bladder neck fails to open sufficiently during voiding, resulting in a weak urinary stream. The condition is suggested by a history of mixed voiding and storage complaints with predominant obstructive symptoms, in the absence of prior infection, injury, neurological or other anatomic obstructive lesions. It may or may not be accompanied by supra-pubic, pelvic and/or testicular pain. The patients express a varying degree of distress with sleep disturbance, work loss and psychological impact. Physical examination is unremarkable except in decompensated bladder. Superimposed urinary infection may complicate the situation.

A comprehensive assessment of the symptoms and signs in combination with urinalysis, urine culture, and uroflowmetry can identify patients who should undergo more invasive testing required for accurate diagnosis. In symptomatic patients, a combination of uroflow and videourodynamics (VUDS) is highly accurate for the diagnosis[2]. Poor funneling of the bladder neck and high-pressure voiding confirm the diagnosis. However, voiding pressure may remain in the normal range with inadequate funneling[3]. In case of non-availability of VUDS, conventional urodynamics along with a separate retrograde and micturating cysto-urethrogram (RGU & MCU) may diagnose the condition. Moreover, as renal functional deterioration is related to exposure of the upper tract to high intravesical pressure, urodynamics can identify patients most likely to be benefited from aggressive treatment.

With an appropriate diagnosis, the therapy results in good outcome in the majority of patients, α -blockers have been the mainstay of medical treatment for PBNO. However the results of treatment with α -blockers have varied greatly. Most studies are small, non-randomized and non-controlled and the types and dosages of drugs are not consistent. Although α -blockers are effective and safe for treating young men with PBNO⁴⁻⁵, the compliance to treatment is poor³. Successful treatment is achieved more in urodynamically obstructed cases⁵. Transurethral bladder neck incision (BNI) is an effective surgical treatment of PBNO, but the major concern in classic bilateral BNI is postoperative retrograde ejaculation and consequent fertility issue in young men. Retrograde ejaculation (27-100% in bilateral BNI) is less likely to occur in unilateral BNI or when part of the supramontanal tissue is preserved in bilateral BNI. The concern is great when the disease affects a young man having no child yet.

Further research is needed to find out a diagnostic method suitable for our population within the available facilities, the appropriate medical therapy with low cost drugs and an optimal surgical technique including its appropriate timing.

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