

Complications of radical retropubic prostatectomy – our experience

Ovidiu Bratu^{1,2}, D. Spînu^{1,2}, I. Oprea¹, R. Popescu¹, D. Marcu¹, C. Farcaș^{1,2}, Marius Dinu¹, Dan Mischianu^{1,2}

Abstract: Introduction: Radical retropubic prostatectomy represents in its various forms (open, laparoscopic and robotic) the "gold standard" treatment for adenocarcinoma of the prostate. Unfortunately like all treatment solutions it has its shortcomings.

Retropubic radical prostatectomy, external beam radiation therapy and brachytherapy are the curative options.

Materials and Method: The experience of Clinic of Urology from Central Military Hospital representing more than 100 cases was analyzed. Classical open retropubic prostatectomy was performed in all cases.

We focused in this paper on intraoperative complications and also precocious and late postoperative complications.

Results: Our results are matching the other centers in terms of intraoperative complications (blood loss), early postoperative complications (hematuria, urinary tract infection, lymphatic drainage) or late postoperative complications (erectile dysfunction and urinary incontinence). However none of these complications are to be underestimated

Conclusions: The limits of this intervention can be pushed a little bit further, in our opinion the age factor is a relative one, some of these patients having a longer than 10 years life expectancy. It provides good oncological outcome with manageable complications most of the times.

Keywords: radical retropubic prostatectomy, complications, nerve sparing

INTRODUCTION

Prostate cancer is nowadays the second most frequent neoplasia in men. Most probably the reason for this frequency is the presence of PSA as a valuable diagnosis tool and also the existence of the guidelines.

Also the very aggressive policy of controls for all men after 50-55 years has begun to show its results. Although radical prostatectomy, radiotherapy and brachytherapy are almost equal in terms of oncological results, in psychological, financial, and

why not life quality radical prostatectomy is represented better.

MATERIALS AND METHOD

We have analyzed our experience at the Central Military Hospital regarding radical prostatectomy between January 2009 and February 2015. Our surgical teams carried on during these period more

¹ Carol Davila Central Emergency Military Hospital, Bucharest

² Carol Davila University of Medicine and Pharmacy, Faculty of Medicine, Bucharest

than one hundred radical prostatectomies for patients with localized or advanced prostate cancer. This paper focuses on intra and post - operative complications we encountered^{1,2}.

Patients mean age was 63.09 years ranging between 51 to 78 years of age. We haven't taken into consideration the general life expectancy for men in Romania, moreover the general biologic status was considered as inclusion criteria.

Major diagnosis criteria for prostate adenocarcinoma were: anamnesis, total PSA and free PSA levels, digital rectal examination and transrectal ultrasonography, which was usually performed when prostatic biopsies were obtained^{3,4}.

Medium prostatic volume of 45 cc without taking into consideration patients that prior have benefited of endoscopic surgery.

PSA levels varied between 0.5 ng/ml and 24 ng/ml. Two cases presented with PSA levels above 20 ng/ml. Those two patients were classified postoperative as pT3b – locally advanced.

Mean Gleason score, which is an important prognosis factor, was between 5-7 at 84 patients. Low risk prostate adenocarcinoma was recorded in six cases, ten patients with Gleason 8 were included in high risk and very high risk groups Patients diagnosed with Gleason 9 score were unsuitable for surgery.

In accordance with European Guidelines surgery was performed at six to eight weeks after the transrectal biopsy and 12 weeks after the transurethral resection of the prostate in order to reduce the prostatic inflammation. General anesthesia was chosen for all patients.

Pelvic lymph node dissection was performed at almost all patients. We used extended lymph node dissection when patients were included in high or very high risk groups.

Urethro-vesical anastomosis was realized using four to eight resorbable sutures excepting six cases when no sutures could be placed due to the short urethra left after the prostatic excision. Those six cases were managed by gentle traction of the urethro-vesical catheter and maintaining the catheter for 14 days

compared to 7 to 10 days as we did on the other cases.

RESULTS

The most redutable intraoperative complication we encountered was blood loss which ranged between 400 milliliters and 2500 milliliters. Twenty - two patients needed intraoperative blood transfusions.

Early complications included: gross hematuria (eight cases) which spontaneously remitted in 24 to 48 hours, wound infection (six cases), prolonged lymphatic pelvic drainage (sixteen cases), urinary tract infection (twenty cases), pulmonary embolism with subsequent death of the patient (one case).

Eighteen patients developed moderate or severe LUTS caused by bladder neck sclerosis or urethral stricture which was managed through endoscopic procedures in the first year post-op. Four cases developed urinary fistula during the first 72 hours after prostatectomy three needing surgery in order to perform a new urethro-vesical anastomosis and one being resolved by placing a gentle traction on the urethro-vesical catheter for 24 hours.

Late complications recorded were urinary incontinence and erectile dysfunction. Following data were analyzed at one year after the surgery, only 78 patients being included in the evaluation. Urinary incontinence was evaluated by the number of pads used by the patient.

Almost 80% confirmed that they do not use any incontinence pads. Ten patients use only one pad a day and lose urine only when changing positions or when sneezing or coughing. Three patients affirmed moderate urinary incontinence using 2-3 pads a day⁵.

We used a similar technique like the TOT used for women to place a suburethral transobturatory mesh for eleven of the thirteen patients with urinary incontinence with very good results and lack of symptoms in nine cases.

Using Walsh technique neurovascular bundles were spared in 62 patients. Erectile function, a very important part in quality of life was assessed using anamnesis and standardized questionnaires. 68.42%

(26 out of 38 patients) of the patients with surgical bilateral neurovascular bundles preservation affirmed satisfactory erections while only 33% (eight out of 24 patients) with unilateral bundle preservation affirmed satisfactory erection⁶.

In sixteen cases due to oncological reasons or intraoperative bleeding neurovascular bundles were not preserved. All patients that benefited from the nerve sparing technique surgery were set on low dose daily 5 PDE inhibitors.

CONCLUSIONS

Radical prostatectomy is the standard treatment for localized and in some cases of locally advanced disease. We consider biologic status to be a more reliable indicator than age alone. That being said we consider far better to evaluate the patient before judging only the age.

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Surprisingly one of the most bothering complications we encountered was bladder neck sclerosis; in this case one of the patients had undergone endoscopic surgery for three consecutive times. One of the hypotheses is the using of tension on the urethro-vesical catheter consequent bladder neck ischemia and in a secondary time sclerosis. This was not the case of this patient.

Intraoperative bleeding remains one of the most serious problems also because of the underlying comorbidities which may be aggravated during surgery.

Incontinence is a very bothersome late complication. Psychologically it has a great impact on the patient quality of life; actually along with erectile dysfunction those two are considered to be the highest burden from the patient's point of view. Still the existence of TOT like procedure for men offers an efficient solution to this problem.