Objectives: The aim of this retrospective study is to present our experience and results in the management of prostate carcinoma, with radical retropubic prostatectomy, for a period of seven years. Material and methods: From December 1997 to April 2005, 61 radical retropubic prostatectomies for prostate carcinoma were performed at the Clinic of Urology in Skopje. Mean age of the treated patients was 66.4 years. Mean serum PSA level was 32.75 ng/ml. None of the patients had distant or bone metastases. Mean operative time was 160 minutes and from 2 to 4 units of blood were transfused intra and postoperatively. Mean follow up time was 39 months.

Results: In all of 61 patients, the RRP was performed for adenocarcinoma of the prostate. The pathological findings postoperatively showed the following pTNM grade: pT2a in 8, pT2b in 10, pT3a in 10, pT3b in 27 and pT4 in 6 patients. Positive lymph nodes were found in 14 cases. Intraoperative complications occurred in 6 patients. Early postoperative complications were seen in 12 patients. Urine leakage was seen in 2 patients, incontinence (day and night) in 8 and pulmonary embolism in 2 patients. Late postoperative complications occurred in 11 patients. Stenosis of the vesico-urethral anastomosis was seen in 3 patients and incontinence (during the night only) in 8 patients. The rate of potency was not evaluated but in the last 30 cases we insisted on preservation of the neurovascular bundles in the cases that it was possible.

Conclusion: Radical retropubic prostatectomy is the method of choice and the golden standard for treatment of organ confined prostate carcinoma in patients with long life expectancy, no neither local nor distant metastases and good overall status. With this technique complication rates are minimal, the cure rate is very big and the patients have high quality of life.

INTRODUCTION:

The radical retropubic prostatectomy (RRP) is the method of choice and the golden standard in the treatment of organ confined prostate carcinoma (PCa) with best long term results. With this retrospective study we want to present our experience in the management of prostate carcinoma, by performing RRP. All the technical difficulties we had, early and late postoperative complications that occurred are described and discussed.

Concerning the complication rate and the quality of life afterwards, the RP is the preferable way of surgical treatment of PCa for the majority of the patients. There are several techniques for performing the RP; retropubic, perineal and the one that is more and more popular and accepted among the urologists, the laparoscopic RP. Most urologists now use the radical retropubic approach, a nerve-sparing technique first described by Walsh et al. in the early 80’s. At the Clinic of Urology we started with the first RRP in 1997, and in the first two years we had only 5 patients eligible for RRP. In the forthcoming years mostly as a result of the better diagnostics and the rising incidence PCa, we had more patients suitable for RRP so today we can speak about our modest experience and knowledge.
All the patients were previously diagnosed with PCa on a transrectal ultrasound guided biopsy or TURP. CT and MRI scans were performed and presence of bone metastases was excluded using bone scan. The mean serum PSA level was 32.75 ng/ml, ranged from 1.6 to 100.1 ng/ml (Chart 2). It is evident that the level of PSA is rather hi, but we’ll have our comments about it later on in the discussion. When performing the operation, in the patients with PSA higher than 20 ng/ml, we performed a regional lymph node dissection. We have to emphasize that in the last 20 cases we had only two patients with PSA higher than 20 ng/ml.

A bilateral nerve-sparing procedure was possible only in one fifth of the patients. Mean operation time was 160 minutes ranged from 100 to 210 minutes. The mean blood loss was less than 500 ml. From 2 to 4 units of blood were transfused during and after the operation. The mean follow-up time after surgery was 39 (range from 6 to 69) months.

The first check up was three weeks to one month after the operation for control of the PSA level and the efficacy of the operation. Than in asymptomatic patients, a disease-specific history and a serum PSA measurement accompanied by DRE are performed at 3, 6 and 12 months after treatment, then every 6 months until 3 years, and then annually. We would like to stress that in patients who underwent to RP, a serum PSA level of more than 0.2 ng/ml is probably associated with residual or recurrent disease. Routine bone scans, TRUS and other imaging studies are not recommended in asymptomatic patients. If the patient has bone pain, a bone scan should be considered irrespective of the serum PSA level.

The complications were observed as intraoperative and postoperative, early and late. We had intention to perform endoscopic or minimally invasive procedures when dealing with the postoperative complications.

RESULTS

The indication for the radical operation in all of the 61 patients was adenocarcinoma of the prostate. The age distribution showed predominance of the male population from 61 to 70 years of age with 33 (54.10%) patients in that group (Chart 1). The pathological analysis of the surgical specimens showed the following pTNM grade: pT2a in 8, pT2b in 10, pT3a in 10, pT3b in 27 and pT4 in 6 patients (Chart 3).

When speaking of the Gleason grade and score, the predominance is shown on the following charts (Chart 4 and 5). It is interesting to emphasize that we had understaging in 21 cases (34.42%) in accordance to the preoperative transrectal biopsy. (Chart 4 and 5)

COMPLICATIONS

Considering the complications, they were divided into three groups: intraoperative and early and late postoperative complications.

Intraoperative complications were seen in 6 patients (9.83%). In 3 cases we had minor rectal lesion and in 3 we had significant bleeding from the dorsal vein complex. Both complications were successfully solved during the operation without compromising the patients’ life or postoperative outcome.

Early postoperative complications (Table 1) were seen in 12 patients (19.67%). Urine leakage from the drains was seen in 2 patients and it resolved spontaneously within 7-10 days. During the hospital stay we had 2 (3.28%) cases of pulmonary embolia, and one of the patient died due to this complication. Urinary incontinence (day and night) persisted in 8 patients. Epididymitis ap-
appeared in 2 patients and they were successfully treated with antibiotics.

Late postoperative complications (Table 2) occurred in 11 patients (18.03%). Stenosis of the vesico-urethral anastomosis was seen in 3 patients and incontinence (during the night only) in 8 patients. The anastomotic stenosis was managed endoscopically with optical internal urethroty. The incontinent patients were advised to wear pads during the night. The potency rate was not evaluated, but in the last 30 cases we insisted on preservation of the neurovascular bundles in the cases that it was possible.

When speaking of the complication rate, many authors have published their series so far. The anastomotic stenosis is seen in up to 17.5% in some series but the most frequently seen numbers are from 0.5-9%. Prior transurethral resection of the prostate, excessive intraoperative blood loss, and urinary extravasation at the site of the anastomosis may contribute to stricture development [7]. When speaking of the incontinence, our results are slightly higher than the percentage seen in the literature. Most urological centers report incontinence in less than 5-10% of the cases. Never the less, incontinence may be found in the literature as reported, up into 20-30% of the patients.

One of the most important parameters for assessing the effect of the operation and presuming the progression of the disease are the presence (absence) of positive margins and postoperative level of serum PSA. Positive margins were seen in 4 of our patients, all of them at the apex of the prostate, while positive lymph nodes were found in 14 specimens (22.95%); 7 patients with G2 and 7 with G3 stage of the disease. Two prostatectomies were not performed because of metastases on frozen sections of the suspicious obturatory lymph nodes. The PSA level measured the first month postoperatively decreased to levels under 0.2 ng/ml in 45 patients. In 9 patients it was between 0.21 and 2 ng/ml and in 7 was between 2.1 and 3.9 ng/ml.

Concerning the adjuvant hormonal therapy in patients with extra capsular extension of the tumour (T3a,b and T4), we administered antiandrogones in all 43 of them while medical or surgical castration was performed in 38. 21 patients started with this therapy within 3 months after the RP, and the rest were introduced progressively within the first two years postoperatively.

**DISCUSSION:**

Radical retropubic prostatectomy is the method of choice and the golden standard for treatment of organ confined prostate cancer. It is crucial that the patient is in good condition and has a reasonably long life expectancy preferably more than 10 years. It is important to emphasize that RP is a potentially curable operation and should be considered like that, especially in patients with preoperative low level of serum PSA and low Gleason grade and score as negative prognostic factors. With the use of this technique and the appropriate selection of the patients, the complication rates are minimal, the cure rate is very big and the patients are satisfied with the final results. The experience of the surgeon is very important since the learning curve is crucial for diminishing operative time, postoperative complications and blood transfusions. However, the biggest problem in our practice ap-
peared to be the late presentation of the patients in the urological office. Large numbers of patients initially have PSA higher than 100 ng/ml, locally advanced disease and multiple local or distant metastases. As it is seen from our study, the vast majority of our patients, 38 (62.29%) had PSA higher than 10 ng/ml and 27 had PSA even higher than 20 ng/ml. Analyzing the surgical specimens we found 43 patients with tumour grade pT3+.

This situation can only be improved with constant development of the diagnostic tools and the scientific knowledge as well as enhancing the patient education and promotion of men health.

**SUMMARY**

Uvod: Cilj ove retrospektivne studije je da prikaže naše iskustvo i rezultate u lečenju karcinoma prostate radikalnom retropubičnom prostatektomijom, za period od 7 godina.


Ključne reči: karcinom prostate, radikalna retropubična prostatektomija, rezultati, komplikacija.

**REFERENCES:**