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PD63-06 INCIDENCE OF AND FACTORS AFFECTING POSTOPERATIVE INFECTION IN URETHROPLASTY: A MULTI-CENTER STUDY

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outcomes of future incontinence procedures are improved given the lack of previous perineal dissection.

Source of Funding: None

PD63-04

TRANSPERINEAL PRE-RECTAL APPROACH TO OPEN REPAIR OF VESICourethRAL ANASTOMOTIC STENOSIS: OUR INITIAL EXPERIENCE AND RESULTS.

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INTRODUCTION AND OBJECTIVES: Vesicourethral anastomotic stenosis (VUAS) is the recognized complication of radical prostatectomy occurring in 0,5 – 30% of cases in different series. Treatment objectives are restoration of normal urination and prevention of severe urinary incontinence (UI). After several failed attempts of endoscopic procedures (EP), open reconstruction is indicated. Currently there is no standard procedure for open VUAS repair. Elaborated transperineal approach, described by G. Webster et al. (1983), is the most widely used option. We hypothesized that pre-rectal approach, same as for radical perineal prostatectomy, described by E. Austoni et al. (2005) for posterior urethroplasty may be better procedure for VUAS reconstruction.

METHODS: From 2009 to 2017 we've operated 20 patients (age 64,1±5,7 y.o.) with VUAS. In 7 cases we have used Webster technique and in 13 modified Austoni technique. Follow-up ranged from 6 to 96 months (median 25). Fisher's exact test, logistic regression (LR), t-test, Wilcoxon and chi-square tests were used to evaluate the influence of patients age, surgical approach, amount of previous EPs, diabetes mellitus, cardiovascular diseases, obesity and smoking on the development of failure and UI.

RESULTS: Total surgical success rate was 14/20 cases (70%). UI developed in all patients, severe in 7/20 (30%) and mild to moderate in 13/20 (70%). Success rate in Webster procedure group was 2/7 (29%), in the Austoni procedure group 12/13 (92%). Severe UI rate was 4/7 (57%) in Webster group and 3/13 (23%) in Austoni group. The only factor having statistically significant influence on failure development was surgical technique ($p = 0,007$). Increasing number of EPs (Fisher's test $p = 0,056$, LR full model $p=0.04$) and obesity (Fisher's test $p = 0,079$) were close to statistically significant influence on failure and should be reassessed in larger series. The only significantly influencing factor on the development of severe UI was the amount of EPs ($p = 0,012$), other factors did not.

CONCLUSIONS: Pre-rectal transperineal approach (Austoni) seems to be better procedure for open surgical management of VUAS than elaborated transperineal approach (Webster) in terms of success rate. Better visualization and closer proximity of VUAS site, exhaustive scars excision, mobilization of the bladder neck and possible preservation of external sphincter mechanism are the advantages. The amount of repeated EPs for VUAS correction should be as low as possible in order to avoid severe UI. These two measures may improve functional results of open VUAS repair.

Source of Funding: none

PD63-05

BULBAR URETHRAL STRICTURES AFTER THE TREATMENT OF PROSTATE CANCER

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INTRODUCTION AND OBJECTIVES: There are few reports in the literature on isolated bulbar urethral strictures after the treatment of prostate cancer because very often they merge indistinguishably with bladder neck contractures (BNC) after radical prostatectomy (RP) or

with prostatic stenoses after irradiation (external beam or brachytherapy). We have reviewed our experience to identify such strictures, their clinical presentation and characteristics, their management and outcomes. Particular attention is paid to distinguishing post-surgical only from post-irradiation strictures.

METHODS: 171 patients with isolated bulbar urethral strictures (i.e not BNC) following prostate cancer treatment over a 10 year period between January 2006 and December 2015 in a single unit were identified from our prospectively collected outcomes database. 56 (32.7%) underwent urethroplasty while the remaining 115 (67.3%) were managed by interval urethral dilatation, self-catheterisation or an indwelling urethral/suprapubic catheter.

RESULTS: 38 of 56 urethroplasties (67.9%) were in patients with post-surgical bulbar strictures. They presented within 3-13 weeks of their surgery with voiding difficulty in all but not retention. Stricture length ranged between 5-17mm. None were oblitative. A patch repair using a graft or flap was performed in all with a successful outcome in 32 (84.2%). Post-irradiation strictures managed by urethroplasty were fewer in number ($n=18$; 32.1%), generally presented later (13-27 months) commonly with urinary retention (12/18; 66.7%). They were longer (11-60mm) and 11 (61.1%) oblitative. 4 underwent EPA (3 failed) and 14 underwent patch repairs using flaps (2 failed) for a total success rate of 72%. The overall success rate for strictures managed by urethroplasty was 80.4% (45/56). In-patient stay was longer following irradiation (4d vs 1d) while the time to full recovery was also significantly longer (5wks vs 2.5wks)

CONCLUSIONS: Only a select minority of bulbar urethral strictures after prostate cancer treatment are suitable for urethroplasty. When they are, the outcomes in post-irradiation strictures are less satisfactory. The majority are better managed by self- or interval dilatation regimes or an indwelling catheter. Radiotherapy strictures are particularly difficult to treat; they are indeed irradiation strictures rather than simply strictures in patients who happen to have had radiation treatment. In these patients the stricture itself is not the only problem; the state of the bladder, bladder neck and risk of injury to the external sphincter are also important and need to be taken into consideration before deciding to perform urethroplasty.

Source of Funding: none

PD63-06

INCIDENCE OF AND FACTORS AFFECTING POSTOPERATIVE INFECTION IN URETHROPLASTY: A MULTI-CENTER STUDY

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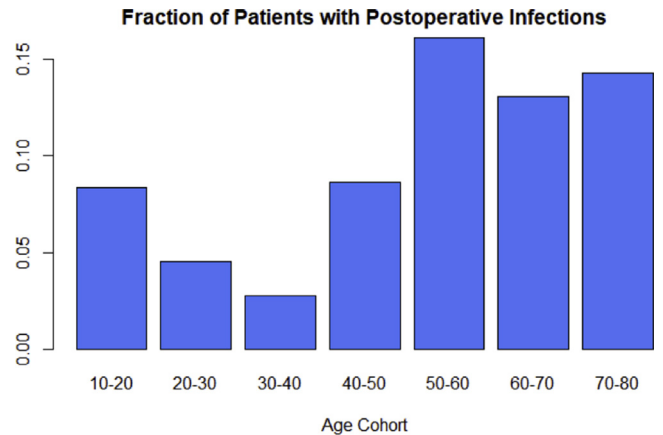
INTRODUCTION AND OBJECTIVES: Postoperative infection is a common complication of urethroplasty. There are two varieties, urinary tract infection (UTI) and wound infection. Previous research on complications of urethroplasty has been mostly qualitative, characterizing the variety of complications. We sought to find the true incidence of postoperative UTI and wound infection, and to identify factors associated with increased risk for infection.

METHODS: A prospective study was designed to treat patients at 6 centers undergoing urethroplasty with a standardized antibiotic regimen (Fig. 1) and to follow their pre- and post-operative care. From 07/16 to 07/17, all patients treated according to the protocol were followed. Demographic data, type of urethroplasty, and whether the patients had preoperative UTIs, postoperative UTIs, or wound infections were collected (Fig. 1).

RESULTS: 361 patients undergoing urethroplasty were followed. 9.4% had postoperative infections, with 6.4% having postoperative UTIs and 3.9% having wound infections. 76 patients had a preoperative UTI. The pre-operative UTIs were caused by a diverse range of organisms (Fig. 2), with the most common being *E. coli*. The incidence of UTI in these patients was 20%, and the relative risk of developing postoperative infection given that a patient had a

preoperative UTI was 3.0. The incidence of postoperative infection varied by age group from 3% to 16% (Fig. 3). Postoperative infection rates also varied by center, with a mean rate of 10% and a standard deviation of 3.3%. Data on whether a graft was used in the patient's urethroplasty was gathered at only 4 centers (n=234 patients). 163 of those patients underwent urethroplasty with graft and of them, 8.6% had postoperative infections. The 71 patients who underwent anon-graft repairs had a postoperative infection rate of 14%. The relative risk of developing a postoperative infection for patients who undergo a urethroplasty with graft versus those who undergo one without graft is 0.61.

CONCLUSIONS: The incidence of postoperative infection in urethroplasty patients is around 9%, with the majority being UTIs. Patients with preoperative UTIs have a significantly higher risk of postoperative infection. Patients over the age of 50 also seem to have higher infection rates, although age-related comorbidities, rather than age itself, may be the cause. Specifically, preoperative UTIs, which were associated with higher rates of UTI, were also positively associated with increasing age. Urethroplasty with graft has a lower relative risk of infection than urethroplasty without graft.



Source of Funding: none

PD63-07
ANTIMICROBIAL PROPHYLAXIS MAY BE UNNECESSARY AFTER URETHROPLASTY

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INTRODUCTION AND OBJECTIVES: Wound healing after urethroplasty is critical to the success of the surgery. The presence of bacterial colonization and urinary tract infection (UTI) may impede wound healing due to increased inflammation. Patients often receive postoperative antibiotics to minimize this risk. The aim of this study was to analyze the frequency of bacterial colonization and UTIs after urethroplasty and the impact on urethral and incisional healing.

METHODS: Patients undergoing urethroplasty by a single surgeon from 2000-2012 were retrospectively reviewed. We specifically reviewed urine cultures within 30 days of urethroplasty, and rates of stricture recurrence and delayed wound healing. A positive culture was defined as >1,000 cfu/mL of an organism.

RESULTS: 398 patients were identified with a mean age of 42.9 years. The mean urethral stricture length was 5.3cm (range 1-24cm). 164 patients (41.2%) underwent excision and primary anastomosis repair and 234 (58.8%) underwent substitution urethroplasty. All patients received preoperative antibiotic prophylaxis and postoperative prophylaxis with trimethoprim/sulfamethoxazole DS daily for 30 days or until the catheter was removed. We identified 102 positive urine cultures (25.6%) within 30 days of urethroplasty of which 63 (61.8%) were treated with antimicrobials and 39 (38.2%) were deemed to represent bacterial colonization only. There were 75 total stricture recurrences (18.8%) with an average follow-up of 52.5 months. 16 patients (15.7%) had a stricture recurrence out of 102 with positive urine cultures. In comparison, 59 patients (19.9%) had a stricture recurrence out of 296 with a negative urine culture (p=0.34). Delayed wound healing including fistula and erosion was present in 18 patients (4.5%) overall, with 6 occurring in patients with positive urine cultures compared to 12 in those with negative urine cultures (5.9% vs. 4.1%, p=0.43).

CONCLUSIONS: A quarter of patients after urethroplasty experience bacterial colonization or UTIs despite antimicrobial prophylaxis. This, however, does not appear to impair urethral healing or influence wound healing. This would suggest that prophylactic antimicrobial therapy could be omitted postoperatively.

Source of Funding: None

PD63-08
EXAMINING DIFFERENCES IN PATIENT-CENTERED OUTCOMES BY URINARY DIVERSION PROCEDURE IN PATIENTS WITH BLADDER CANCER: RESULTS OF A NATION-WIDE SURVEY

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