1268

REVISION WASHOUT APPEARS TO IMPROVE MECHANICAL FAILURE RATES IN AN OUTCOMES ANALYSIS OF OVER 200 REVISION SURGERIES FOR PENILE PROSTHESIS IMPLANTATION: A MULTICENTER STUDY

Gerard Henry, William Connor, Shreveport, LA; Cully Carson, Chapel Hill, NC; Steven Wilson, Indo, CA; Aaron Lentz, Chapel Hill, NC; Edward Rampersaud, Shreveport, LA; Mario Cleves, Caroline Simmons, Little Rock, AR; Craig Donatucci, Durham, NC*

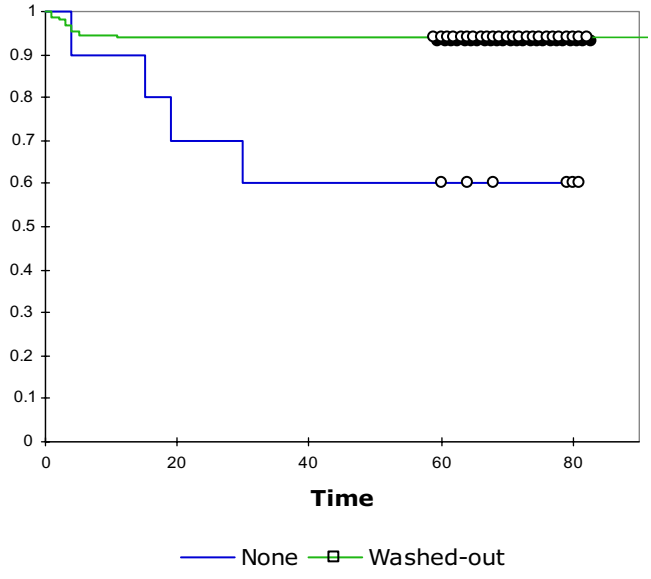
INTRODUCTION AND OBJECTIVES: The majority of penile prostheses have culture positive bacteria at the time of revision surgery (J Urol 172: 153). Revision washout appears to decreases penile prosthesis infection at the time of revision surgery (J Urol 173: 89). Revision washout decreases implant capsule tissue culture positivity (J Urol 179(1): 186.) The original biofilm paper above showed that those revision cases that had positive swab cultures had significantly lower survival time for mechanical failure than those revision cases with negative swab cultures begs the question: does revision washout improve mechanical survival rates of revision/replacement penile prostheses versus those revision/replacement cases where no revision washout was done?

METHODS: At 4 institutions, 195 patients with a penile prosthesis underwent revision surgery between November 2000 and November 2007. This review of penile prosthesis revisions entailed 201 cases, however, there was incomplete data for 28 of the cases (14%) and one center closed with data was truncated at that date for those patients. Patients were separated into 2 groups for this analysis, group 1—those who did not undergo a revision washout and group 2—those patients who did undergo a revision washout. Nonparametric revision-free duration curves were calculated using the Kaplan-Meier product limit method.

RESULTS: Those patients who received a revision washout at the time of revision / replacement surgery for their penile prosthesis had better mechanical survival rates ($p < 0.001$) as compared to those who had no washout (see graph).

CONCLUSIONS: Revision washout has been shown to decrease infection rates, implant capsule bacterial positively, and now appears to improve mechanical survival rates at the time of revision surgery for penile prostheses.

Mechanical Survival distribution function



Source of Funding: None

1269

PATIENTS UNDERGOING CONTEMPORARY REVISION PENILE PROSTHESIS SURGERY DO NOT HAVE HIGH RATES OF BACTERIAL COLONIZATION OF THE IMPLANT, AND ARE NOT AT INCREASED RISK FOR INFECTION.

Bruce Kava, Prashanth Kanagarajah, Miami, FL*

INTRODUCTION AND OBJECTIVES: Revision penile prosthesis surgery has traditionally been associated with a higher infection risk than first time implant surgery. This has been attributed to the high prevalence of bacteria found in cultures taken from the implant, even in clinically uninfected individuals. External validation of these data in a contemporary cohort of patients undergoing revision penile prosthesis surgery was the objective of this single- center study.

METHODS: Data from consecutive patients undergoing penile prosthesis surgery at our center are prospectively entered into an IRB-approved database. Patients undergoing revision surgery, in which one or more components of the device were removed, replaced, or rerouted were studied. Patients in whom infection was suspected preoperatively were excluded from the analysis.

RESULTS: Sixty- six patients underwent revision penile prosthesis surgery, in which one or more components were either: removed and replaced (N=43, 65%), removed and rerouted (N=20, 30%), or rerouted only (N=3, 5%). The average age of the implant undergoing revision was 6.6 +/- 6.0 years, and a modified revision washout protocol was utilized in 42 (63%) patients. In 48 of the 66 patients (73%), intraoperative cultures were sent from the scrotal pump, any abnormal fluid collections surrounding the device, or bacterial biofilm. These were positive in 3 patients (6.3%), all of whom underwent a modified revision washout procedure. With a mean follow up of 18.5 +/- 17.3 months, 3 patients (4.5%) developed clinical infection of the device. None of these patients had positive cultures at the time of the revision surgery.

CONCLUSIONS: Penile prostheses that are exposed during revision surgery do not have a high prevalence of bacterial colonization at our center. A positive culture at the time of revision surgery was clinically meaningless, possibly as a result of the washout protocol. The overall infection risk of revision surgery in this relatively large single center series is low, and is not significantly higher than first time implants at our center or from historical series.

Source of Funding: None

1270

MAGNETIC RESONANCE IMAGING; A GUIDE TO ITS CLINICAL APPLICATION FOR EVALUATION OF PROBLEMATIC INFLATABLE PENILE PROSTHESES

E. Frederick McPhail, Ajay Nehra, Akira Kawashima, Bernard King, Bryan Bruner, Bohyun Kim, Rochester, MN*

INTRODUCTION AND OBJECTIVES: Patient satisfaction is high among patients who undergo placement of inflatable penile prostheses (IPP). In some patients, however, the device may function inadequately, not at all, or may be associated with postoperative anatomic abnormalities. Some postoperative complications are clinically apparent, but others are more equivocal. We aim to describe the use of radiologic imaging, particularly MRI, for anatomic localization and detection of prosthesis malrotation, angulation, displacement, and erosion in IPPs with equivocal clinical examination.

METHODS: We prospectively performed MRI by a defined protocol using transaxial T1-weighted, and transaxial, sagittal, and coronal fat-saturated fast spin-echo T2-weighted imaging in deflated and inflated states to evaluate patients seen at our referral center for IPP-related complaints. This was used in all cases as a supplement to clinical evaluation. With IRB approval, we retrospectively reviewed 32 MRI studies performed by this protocol between 2000-2008.