Coated Implants and “No Touch” Surgical Technique Decrease Risk of Infection in Inflatable Penile Prosthesis Implantation

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Purpose:

The inflatable penile prosthesis (IPP) is a well-established treatment for medically refractory erectile dysfunction. Infection is the most dreaded complication. Infection retardant coatings on modern implants have lowered the infection rate approximately 50%. This retrospective but prospectively followed single center study explores whether a “no touch” enhancement to the surgical technique of IPP will further decrease infection rates. The “no touch” technique ensures that neither the surgeon, the instruments nor the implant touch the patient’s skin.

Materials and Methods:

A single surgeon performed 2,347 IPP between 1/2002 and 6/2011. AMS and Coloplast implants were used in similar proportions. Patients receiving each manufacturer’s implants and patients in the various groups were stratified for age and diabetes. In 2002, non infection-retardant coated implants were used and the remaining years infection retardant-coated IPPs were implanted. During the years 2003-2006 coated implants were utilized with standardized penoscrotal implantation. Since 2006 the “no touch” enhancement was added to the surgical procedure. Infection rates in the non coated IPP, coated IPP with standard technique and coated IPP implanted with “no touch” enhancement to standard technique were calculated and subjected to statistical analysis. The two companies’ implants were scrutinized for their individual infection rates in each group.

Results:

Patients in all the groups were similar for age and diabetes. 132 non-coated implants had an infection rate of 5.3%. In the years 2003-2005, 704-coated devices had a statistically significant improvement in incidence of infection to 2%. In the years 2006-2010 the “no touch” technique enhanced the standard surgical procedure in 1,511 patients. Only 7 infections were seen yielding an infection incidence of 0.46%. There was no difference in the two manufacturers’ infection rates in any of the groupings. Differentiation between virgin and revision operation displayed no bias in the infection rate.

Conclusion:

Infection retardant coatings lower the risk of infection from 5.3% to 2%. The “no touch” enhancement to the surgical procedure further decreases the rate of infection to 0.46%. Neither manufacturer showed superiority in survival from revision for infection.

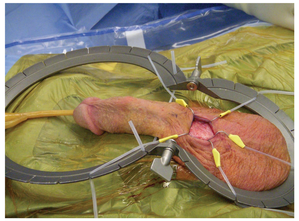

FIGURE 1. Dissection is carried down to Buck’s fascia with aid of Scott retractor and blunt hooks. At this point, gloves, instruments and retractor that have touched the patient are discarded and “no touch” enhancement instituted

FIGURE 2: “No touch drape deployed and cylinder implantation occurs with “no touch” enhancement. Note pump is isolated from scrotal skin

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