Implant protocol helps reduce penile shortening

Pre-procedure use of vacuum device can restore penis to original length, data show

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Daytona Beach, FL – A new noninvasive vacuum protocol for erectile dysfunction patients using an inflatable penile prosthesis can prevent penile shortening, according to results of a study presented at the AUA annual meeting in Chicago.

Cylinder length of a penile prosthesis reflects the length of the penis at the time of the procedure. Penile shortening associated with implants is not an insignificant problem. The average length of implanted cylinders has increased 5.5 cm in patients who have undergone the new protocol.

"There is no question that overall implant length has grown anywhere from 3 to 5 centimeters," said study co-author Martin Dineen, MD, of Atlantic Urological Associates, Daytona Beach, FL. "The vacuum protocol in our hands has virtually eliminated patient complaints of penile shortening."

Dr. Dineen and co-author Steven K. Wilson, MD of the Institute for Urologic Excellence, Indio, CA, credit Thomas Sellers, a physician's assistant working in Dr. Dineen's practice, with identifying and refining the protocol.

"It (the initial idea) came from listening to non-implant patients who were using vacuum devices for erections," Sellers said. "They were telling me that they thought they were getting larger. The key to the idea came when I started having the patients mark the device with a felt marker where the end of their penis reached. That is how the protocol was created."

Under the protocol, patients anticipating an implant are instructed to use a vacuum device once daily for 10 minutes, beginning 2 months before the scheduled procedure. Patients with Peyronie's disease should use it twice daily.

"Those who were using it for around 10 minutes without the constriction bands seemed to be getting the most length," Sellers said. "Those who were using it longer did not appear to be gaining any additional length, and those who were using it for a shorter period were not getting as much of a return as they might be."

Sellers and the doctors caution that patients should be told that while they may regain their original length or a length close to it, they should not expect any gains beyond their original length.

After implant surgery, the penile implant is left 50% erect for 2 days and then deflated to 25% for 9 to 14 days. Following that exercise, patients are advised to inflate the device daily for 2 months.

Dr. Dineen and Sellers conducted a review of cylinder sizes they have implanted beginning in 2002, the year the protocol was initiated, through December 2009. The average length of virgin implants and rear tip extenders grew 5.5 cm (from 18.4 cm, to 23.89 cm), an increase that reflects both expanding use and modification of the protocol over those 6 years.

High rate of compliance

"When a patient does not have an erection for a long time… the tissues foreshorten," Dr. Dineen said, "The idea behind the pump is that it stretches these tissues back to their normal length gradually. I explain it to patients as having their arm in a cast for 8 weeks. It is a bad idea, a painful idea; to stretch it back immediately after the cast is taken off."

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The average length of virgin implants and rear tip extenders grew 5.5 cm during the period that the protocol was used.

Despite the rigors of the protocol's schedule, patient compliance is more than 95%, Sellers estimates.

"Having (patients) mark the cylinder every week allows them to see their penis growing longer," he said. "These become motivated patients."

The protocol is now a standard aspect of therapy for patients anticipating an implant in Dr. Dineen's practice. Dr. Wilson uses the protocol only in patients who voice a concern about penile length. He says he feels that patient motivation is important for compliance. An independent, randomized, prospective trial designed to test these initial data is underway.

Drs. Dineen and Wilson are consultants / advisers for American Medical Systems, which provided funding for the study and manufactures the implant used by the researchers.