Minimally Invasive Office Procedure Options for Female Stress Urinary Incontinence

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Stress urinary incontinence (SUI) in women is associated with urethral hypermobility, meaning the urethra is poorly supported by the pelvic floor. SUI can also be associated with intrinsic sphincter deficiency (ISD) which means the urethra simply does not perform properly. In both cases, a woman can experience urine loss during activities that cause increased intra-abdominal pressure, such as coughing, sneezing, and exercise. Treatment for SUI has primarily involved surgery designed to support or strengthen the urethra and/or to maximize urethral pressure and improve the sphincter's ability to act as a closing valve. However, many women diagnosed with SUI do not proceed with definitive treatment because few options are available that are safe, non-invasive or minimally invasive, provide rapid recovery, and also provide long-term improvement in quality of life (QOL).

With respect to available treatments, non-invasive, non-drug treatment has been primarily confined to pelvic floor muscle training (Kegel exercises); unfortunately, these exercises have limited success in the treatment of SUI. In addition, women who do achieve improvement with these exercises must continue to do the exercises to maintain continence. Injection of bulking agents such as collagen or coaptite are approved for treating ISD, which is far less invasive than most SUI surgery, but may require repetitive treatments to maintain satisfactory dryness.

Surgery is generally considered the most effective means of treating SUI. However, many women are not considered suitable candidates for surgery, such as younger women who wish to have more children or those older than 75 years with other conditions that increase surgical and anesthetic risk. Additionally, many women are hesitant to undergo surgery because they are fearful or because they are unable to take the time off from work or family responsibilities to assure good recovery. Finally, surgeries do have complications and side effects, and they are not 100% effective in everyone. As a result, many women do not wish to take the risk for the proposed benefit.

Another non-surgical option for women with SUI caused by poor pelvic floor support (urethral hypermobility) is the Renessa™ system of radio-frequency (RF) collagen denaturation. (This procedure is NOT an option for the woman with ISD and thus does not compete with injectable bulking agents) The Renessa procedure can be performed in a physician's office under local anesthesia in less than 30 minutes. A small probe, similar to a catheter, is inserted into the urethra; the probe contains four (4)

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NAFC is saddened to report that Dr. Rodney Appell passed away suddenly on January 19, 2008, shortly after submitting this article. Dr. Appell, a dedicated urologist and surgeon, served on the NAFC Board from 1989 - 2007, including a term as Chairman, and was recently elected to rejoin the Board for a new term. Insistent that our newsletter be reviewed routinely by clinicians for accuracy in content, he was instrumental in the formation of an Editorial Advisory Panel on which he served for 12 years. He also authored and reviewed numerous articles for *Quality Care*. In 2008, he was recognized as a NAFC Continence Care Champion – the award will now be known as the Rodney Appell Continence Care Champion Award. We will miss his longstanding support of NAFC and our mission, remembering him most for his unwavering allegiance to quality and integrity in all choices and his respect for the patient above all else. Our heartfelt sympathies go out to his wife and two sons. To read tributes to Dr. Appell and contribute to a special patient education fund in his honor, please visit our Web site at www.nafc.org.

electrodes that transmit RF to the bladder neck and the area of the urethra containing the sphincters. The low temperature heat alters the connective tissue in a way that improves support for the urethra and reduces urethral hypermobility (the tendency of the urethra to drop "out of position" with activities like coughing). The low temperature heat does NOT affect the lining of the urethra or bladder neck so there is no narrowing of the urethra or scar tissue development. Local anesthesia is all that is necessary so a patient can drive herself to the office, have the procedure, and drive herself home. The results of the original clinical trial in 173 patients have been published as well as the three year results, which have demonstrated the durability of the successful treatment. Seventy-four percent of women with moderate to severe SUI receiving this treatment experienced sustained improvement in QOL, and 58% of those treated no longer wear pads.

To date, this non-surgical procedure appears to be an alternative for women with SUI who want a non-surgical, in-office treatment which may provide durable relief of the symptoms of SUI and an improvement in their quality of life. ❖

Dr. Appell has disclosed that he is a consultant for Boston Scientific Corp; American Medical Systems, Inc; Novasys Medical Inc.; Pfizer, Inc.; Watson Pharmaceuticals; Allergan; and Astellas. He provides grants/research support to SolaceTech; Novasys Medical Inc.; Boston Scientific Corp.; Contura, Inc.; and Pfizer, Inc.