UROLOGICAL MEDICAL GROUP OF NORTH ORANGE COUNTY

Adult and Pediatric Urology

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Lower Urinary Dysfunctional Epithelium

C. Lowell Parsons, M.D. is a Professor of Urology at the University of California, San Diego. He has been studying bladder pain, overactive bladder and interstitial cystitis for three decades. Widely regarded as one of the leading investigators in the world of interstitial cystitis, he recently presented groundbreaking studies that will revolutionize treatment of bladder pain, recurrent prostatitis, recurrent urinary tract infection, overactive bladder, and a variety of other urologic conditions including pelvic, scrotal and labial pain. He believes that there is a unifying theory that explains all of these conditions.

The unifying theory is that in affected persons, the potassium (K+) excreted by the kidneys in high concentration irritates and damages the bladder because the bladder lining (epithelium) is deficient in its protective layer of mucus (called the glycosoaminoglycan or GAG layer). Repair of the layer eliminates the pain and allows return of normal bladder function. Studies have shown the bladder lining deficiency to be genetic and related to a defect in a specific protein.

It is estimated that about one-quarter of people have bladder or pelvic problems due to this deficiency of the GAG layer, making it one of the most common disease entities known. Repair of the GAG layer with oral medications takes several months, but direct placement into the bladder of a chemical analog and anti-inflammatories speeds recovery of the bladder epithelium while waiting for the oral medication to take effect. Elmiron is the oral medication and heparin – also a blood thinner – is a medicine placed directly into the bladder (intravesical). Elmiron may also be used with similar success for the intravesical treatment and is less expensive.

Elmiron or heparin is mixed with a local anesthetic (Xylocaine) and alkalinizing agent (sodium bicarbonate) and placed into the empty bladder via a small catheter. The patient waits for 30-45 minutes before voiding. In some cases this is done three times a week for two to three weeks while oral medication is instituted. It can also be repeated for "flares" of pain/urgency.

For patients who have very severe interstitial cystitis and a variety of other conditions listed earlier – now being called LUDE or lower urinary dysfunctional epithelium – they can be taught to self-administer this mixture. Published literature on this program is pending, as these are very new and exciting results from ongoing research by Dr. Parsons. There are no significant side effects to either the oral or intravesical treatments and these are off-label uses of FDA-approved medications, but perfectly reasonable and appropriate, based on years of ongoing medical research.