For the past eight years, urologists and researchers around the world have tried to define “subtypes” or “phenotypes” to direct patients to the best treatment for their unique case for IC. The first and most obvious subtypes are Ulcerative (aka Hunner’s Lesions) and Non-Ulcerative. In 2015, Dr. Christopher Payne suggested five subtypes of IC that assess the whole patient and produces a customized treatment plan(1). This is best considered a starting point; there may be overlap between the subtypes and many other subtypes are possible.

Five Proposed Subtypes of IC/BPS

#1 – IC: Hunner’s Lesions – This small subset of patients (10% of the patient population) have inflammatory lesions visible on their bladder wall. In much of the world, only patients with Hunner’s lesions are diagnosed with “interstitial cystitis.” Patients without lesions are diagnosed with “bladder pain syndrome.” Hunner’s lesions require local lesion directed therapy (laser, fulguration, steroid injections) and do not generally respond to oral medications and bladder instillations. A new medical device currently under study, LiRIS or LiNKA, is the first treatment in history that has healed and/or reduced the size of lesions in just a two week treatment period.

#2 – BPS: Bladder Centric Phenotype – Patient symptoms often start with a UTI, chemotherapy or other bladder insult. Frequency and urgency can occur throughout the day and night. Pain increases as the bladder fills with urine and is reduced on emptying. These patients usually find that their pain decreases when an anesthetic (lidocaine) is instilled into the bladder. Treatment priority focuses on calming and soothing the bladder wall, diet modification, OTC supplements, oral medications and other bladder directed therapies.

#3 – BPS: Myofascial Pain Phenotype – These patients often have a history of sports, orthopedic injuries or childbirth trauma. Upon examination, they have pelvic floor tension and the presence of trigger points in their pelvis, abdomen, back and hips that trigger severe symptoms when touched. They may have less diet sensitivity, normal or larger voids, may sleep more comfortably when their muscles are relaxed. Bladder instillation of lidocaine is NOT generally helpful. Treatment priority is pelvic floor physical therapy.

#4 – BPS: Neuralgia Phenotype – These patients can have pelvic floor muscle tension or other causes of pudendal nerve compression. This causes severe burning or electric pain when sitting, “sensory abnormalities in the pudendal distribution” and a positive Tinel’s sign (tingling or pins and needles when the nerve is tapped gently). Pain is not typically linked to bladder function. Treatment starts with identifying causes of injury/irritation, physical therapy and stretching for tight muscles and analgesics specific for neuropathic pain. Nerve blocks can be both diagnostic and therapeutic when conservative measures fail. Surgical nerve release is infrequently needed but can be effective in carefully selected patients.

#5 – Multiple Pain Disorders / Functional Somatic Syndrome / Central Sensitization Syndrome – These patients have multiple pain disorders (i.e. IBS, vulvodynia, fibromyalgia, etc.). Dr. Payne wrote “Their prognosis is inherently different and the invasive treatments that may be appropriate for pelvic pain phenotypes could actually make things worse…Clinicians should proceed much more cautiously.” These patients often demonstrate other signs of neurosensitization including extremely sensitive skin, diet sensitivity, drug sensitivity, chemical sensitivity and even visual sensitivity. Most also have an extremely sensitive sense of smell. Treatment priorities focus on treating all pain generators to reduce the overall volume of pain in the nervous system, as well as avoiding therapies that can be traumatic and/or irritate nerves. Patients are also encouraged to try cognitive behavioral therapies so that they can learn to control stress and other potential flare triggers. The goal is to maximize the patient’s ability to function in normal activities. Much current research is directed toward this phenotype including the NIDDK MAPP program.