MEDICAL BREAKTHROUGHS
RESEARCH SUMMARY

TOPIC: NUTCRACKER SYNDROME SURGERY TAKES THE SQUEEZE AWAY
REPORT: **MB #4968**

BACKGROUND: There are two main types of nutcracker syndrome: anterior and posterior. The most common type is anterior nutcracker syndrome, where the left renal vein is compressed between the aorta and another abdominal artery. In posterior nutcracker syndrome, the left renal vein is compressed between the aorta and the spine. Nutcracker syndrome got its name because the compression of the renal vein is like a nutcracker cracking a nut. Symptoms are most often caused when the left renal vein coming from the left kidney becomes compressed and blood can't flow normally through it. Instead, blood flows backwards into other veins and causes them to swell.
(Source: https://www.healthline.com/health/nutcracker-syndrome)

SYMPTOMS AND DIAGNOSIS: Some common symptoms of nutcracker syndrome include blood in the urine; pelvic pain; pain in the side or abdomen; protein in the urine, which can be determined by a doctor; pain during intercourse; enlarged veins in testicles; and lightheadedness while standing, but not while sitting. A doctor will perform a physical exam and take a medical history and ask about symptoms to help narrow down a diagnosis. If nutcracker syndrome is suspected, the doctor will take urine samples to look for blood, protein, and bacteria. Next, the doctor may recommend a Doppler ultrasound of the kidney area to see if there's any abnormal blood flow through the veins and arteries. A CT scan or MRI may be recommended to look more closely at the kidneys, blood vessels, and other organs to see exactly where and why the vein is compressed.
(Source: https://www.healthline.com/health/nutcracker-syndrome#symptoms)

A MINIMALLY INVASIVE ALTERNATIVE: The most widely used treatment options for nutcracker syndrome include open vascular approaches, laparoscopic techniques, and the placement of endovascular stents. Laparoscopic techniques, compared with open surgeries, are less invasive and associated with reduced post-operative morbidity. Vascular stent treatment, including the placement of both internal and external vascular stents, has become a desirable option that is minimally invasive with good results. Improvements have been seen in left renal vein diameter after placement of stents, as well as in the peak velocity ratio and renocaval pressure gradient in many patients. However, the stenting treatment is not without risks. Complications can include incorrect stent placement and stent migration requiring surgical intervention.
(Source:
https://journals.lww.com/cmj/fulltext/2019/06200/a_minimally_invasive_alternative_for_the_treatment.11.aspx)

FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:

DAN COLLINS
410-332-9714
DCOLLINS@MDMERCY.COM

If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com