Hypertension

What is hypertension?
Hypertension, or high blood pressure, is a condition in which the force of blood against the artery wall (blood vessel) is consistently high. Hypertension can cause serious health problems, including heart disease, renal failure, and stroke. Fortunately, hypertension can be easily spotted by regularly monitoring your blood pressure. Other tests to diagnose hypertension include an ultrasound, CT scan, MRI and angiography. There are many medications available for controlling blood pressure but some forms of hypertension, such as renovascular hypertension impacting the kidneys, are resistant to medication and require different treatment.

Renovascular hypertension occurs when the blood flow to the kidneys becomes blocked. When these blood vessels become narrowed, blood cannot easily get to the kidneys in order to remove salt and water. As a result, fluid build-up causes high blood pressure. Through a treatment called renal artery angioplasty and stenting, interventional radiologists can open up the narrowed renal arteries, restoring normal blood flow.

Treatment
When medications are not enough to treat hypertension, interventional radiologists can deliver minimally invasive treatments with less risk, less pain and shorter recovery time than traditional surgery.

Renal artery stenting
Renal artery angioplasty and stenting are minimally invasive treatments used to open the blocked vessel and restore normal blood flow. Access to the blood vessel is gained through a single small incision rather than by an open invasive surgery.

The interventional radiologist guides a flexible tube, known as a catheter, with a tiny balloon to the diseased portion of the blood vessel. Once in position, the balloon is inflated to open the blockage. The balloon flattens the artery-clogging plaque against the blood vessel wall, allowing more blood to pass through. A stent (a fine mesh tube) can be inserted into the blood vessel to keep it open.