

BANKERS HEART INSTITUTE launches Novel treatment for hypertension – 1st in India, RENAL SYMPATHETIC DENERVATION

As we all know life style is getting more hectic by the day presenting new challenges and more deadlines to meet. Even children are not spared the same. The result is the growing proportion of life style diseases like hypertension, diabetes mellitus and heart diseases. They present major concerns today and have now overtaken cancer as the leading cause of death world-wide.

Hypertension in particular affects as many as one-thirds of the developed world today and it is no better in the developing world. It is an otherwise asymptomatic disease with grave consequences and clinical manifestations appear only when complications appear. To make matters worse, the treatment required involves a lot of discipline and dedication in terms of a life-long medical therapy, life-style modifications, dietary interventions and stress management; which may not be that practicable in today's scenario. And hence the 30% dictum that goes about the disease, that only 30% of hypertensives are diagnosed of which only 30% receive treatment; of which only 30% stick to their treatment regime and of which only 30% actually achieve target blood pressure goals.

Thus hypertension presents a silent killer syndrome; affecting almost all organs of the body leading to serious complications such as heart attacks, heart failure, paralysis, etc. and hence the need for, if possible, a potential curative strategy.

A lot of medications are available for the same, but they only control blood pressure pharmacologically without altering the basic patho-physiology of the problem. But now there is a resurgence of a novel therapeutic strategy that addresses the root cause.

Renal sympathetic denervation is a catheter based minimally invasive technique of radio frequency ablation of renal sympathetic nerves. Renal sympathetic nerves have a significant role in maintenance of central sympathetic over-activity which is an important determinant in keeping blood pressure high. Moreover they also modulate the rennin-angiotensin-aldosterone system of the kidneys whereby salt and water retention is adjusted in hypertensive patients. The impact of both of these abnormalities together contribute to maintenance of high blood pressure in hypertensive subjects; and also to development of resistance to certain drugs in the long run.



Lumbar sympathectomy was a procedure carried on in the past around 40-50 years back for uncontrolled hypertension before the advent of modern day effective and safe anti-hypertensive medications. But it was a major surgery and being non-selective had a profound effect on other organs such as the intestines, urinary bladder, ejaculatory system etc., which made the procedure, though effective, unpopular and obsolete with time.

But now in the era of interventional cardiology, the development of a novel strategy, which is both effective and safe, has generated a renewed interest in the older modality of denervating the sympathetic nerves. However in contrast to the older surgical approach, the present technique is done using a percutaneous catheter through the femoral arterial approach. The radio-frequency ablation technique is used instead of the surgical dissection of sympathetic nerves. Moreover its only the renal sympathetic nerves which are the culprits, that are ablated, thus sparing the other visceral organs and maintaining their integrity and functions. Thus the procedure makes control of hypertension very easy; reducing need of a number of life-long medications.

This renal sympathetic denervation is thus, to conclude, a very simple and reliable, non-surgical approach that addresses the core patho-physiological processes in hypertension

It is done under local anaesthesia with the **patient fully awake** and a total **hospital stay** of not more than **24 hours**.

Till date we have successfully performed **TEN cases** with good response in terms of Blood Pressure reduction and patient safety and comfort.

Almost all patients can undergo this procedure and ensure a better and predictable control of their blood pressures.

This procedure has been widely employed now in Europe, Australia and Newzealand. Dr. Darshan Banker, a well known interventional cardiologist at Bankers Heart Institute, and always keen to bring technological innovations to the city, has undergone exhaustive training in Germany regarding the procedure. The institute has procured all the necessary technology and equipments and has geared up for providing this technological marvel to hypertensives in and around Vadodara.

Bankers Heart Institute proudly presents the launch of this new interventional armamentum for hypertension **1st time in India**, which is sure to curb down the ill impacts of hypertension and improve quality of life of the victims of this life-style disease.

Dr. Parul Banker
Medical Director

