

Renal Denervation: A New Hope for Severe Hypertensive Patients?



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Hypertension is one of the major public health issues and represents nowadays a growing problem with a global prevalence of 26 % of the world adult population. Dangers of uncontrolled hypertension are numerous, and include myocardial infarction (heart attack), heart failure, kidney failure, loss of vision, stroke and death.

Treatment of hypertension relies mainly on lifestyle changes like quitting smoking, low salt diet, sports, etc... In addition to the important lifestyle changes, hypertension patients need often to be treated by medications like Beta Blockers, diuretics among many others.

But despite all these available treatments, there are people that keep having high blood pressure. These people may have **‘treatment-resistant hypertension’** which is defined as having a blood pressure that is above goal in spite the use of multiple anti-hypertensive medications. These patients represent around 20% of hypertensive patients and they have a substantially increased risk of cardiovascular events (three times more) compared with patients with controlled hypertension. **Even a small blood pressure reduction in these patients yields to significant benefits.**

- Are there any solutions for these patients?

In the 21st century and with the continuously evolving Medicine, interventional radiology brings one solution to these patients by introducing a new therapeutic approach for treatment-resistant-hypertension: the “Renal

Denervation’ (RDN). This procedure is based on the role of the nervous system in hypertension.

- What is this procedure?

Renal denervation is a minimally invasive, catheter-based procedure that disrupts the output of sympathetic nerves lying within the wall of the renal artery.

This disruption lowers the activation of the sympathetic nervous system, giving the resistant hypertensive patients a potent way to lower their blood pressure levels.

- How is it performed?

It is a brief procedure, lasting between 30 and 60 minutes, performed in a catheterization lab, much like an angiogram or a balloon-angioplasty. A catheter is introduced through the groin into the arterial system to reach the renal artery and then low power energy is applied to the renal artery to selectively disrupt and silence the nerves that run around the artery, while perfectly preserving the artery itself.

- Who are the candidates?

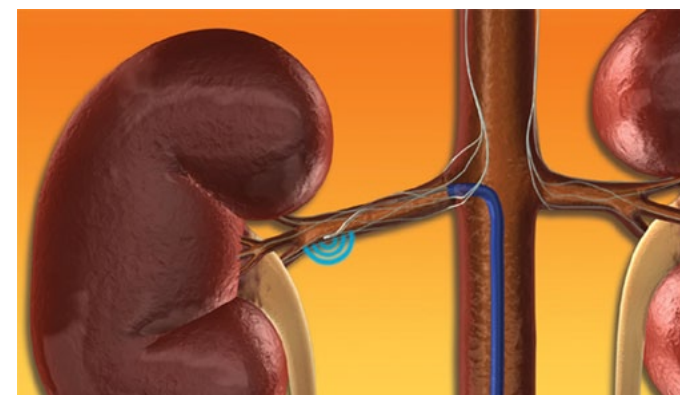
Not all hypertensive patients are eligible for the treatment. Today, the procedure targets patients who have systolic blood pressure higher than 160 mmHg despite three or more medications. Additional considerations include an age more than 18 years, discontinuation of any interfering pharmacologic substances...

However, there are ongoing studies on less severe hypertensive patients. If these are conclusive, then the procedure may be offered to more people in the future.

Today, we examine each case and determine if the patient fits the criteria and is eligible for treatment.

- Is it a safe procedure and what are the benefits?

While the RDN demonstrates very safe clinical outcomes with no evidence of vascular injury to the arteries treated, all the data available today indicates a reduction in blood pressure reaching -32/-12 mmHg in most patients. It also demonstrates a sustained decrease in blood pressure to at least 36 months.



- Is it performed in Lebanon?

A few patients had already been treated in Beirut a few years back. Today, the procedure is gaining more and more acceptance worldwide with newer techniques and devices and we have re-introduced it in Lebanon. Cases have been successfully performed during the last two months in Tripoli and in Beirut.

A **crucial** key to success remains the overall management

of the patient. The RDN remains one tool among others in the hand of doctors, and must only be offered, performed and monitored by a multi-disciplinary team operating in harmony. This **multi-disciplinary team** (typically involving a nephrologist, a cardiologist and an endovascular radiologist) is a must for the success of the technique and for the best interest of patients...

In **Conclusion**, hypertension is considered a major public health issue and treatment-resistant hypertension is a dangerous and growing problem despite the availability of poly-pharmacy and focus on patient compliance and lifestyle changes.

These patients with treatment-resistant hypertension have now a new hope with the introduction of the minimally-invasive renal denervation that targets directly the sympathetic nervous system of the renal arteries and silences its over activity.

The renal denervation is proven nowadays to be very safe and efficacious with sustained reduction in blood pressure.

Infos

Le Jus de Grenade Pourrait Etre Aphrodisiaque Entre Autres Bénéfices

Parmi plusieurs autres bénéfices pour la santé, le jus de grenade serait aphrodisiaque pour les femmes et les hommes, selon une étude écossaise.

Des chercheurs de l'Université Queen Margaret à Edinburgh ont mené cette étude avec 58 personnes, âgées de 21 à 64 ans, qui prenaient un verre de jus de grenade par jour pendant deux semaines. Les niveaux de l'hormone sexuelle testostérone et de tension artérielle étaient mesurés et les niveaux de 11 émotions incluant la peur, la tristesse, la culpabilité, la timidité et l'assurance, étaient évalués.

Après 2 semaines, les niveaux de testostérone étaient augmentés de 16% à 30% et la tension artérielle était diminuée. La testostérone joue un rôle dans la libido, chez les hommes et chez les femmes.

Les émotions positives étaient augmentées et les sentiments négatifs diminués. L'humeur et la mémoire étaient améliorées et la réactivité au stress était diminuée. Les hommes avaient plus de barbe, une voix plus grave et une plus grande libido.

Les médias ne rapportent pas par quel processus ce fruit augmenterait la testostérone.

Une étude précédente de la même équipe avait déjà montré que le jus de grenade diminuait la tension artérielle et aidait à réduire les graisses abdominales.

Le jus de grenade est très riche en antioxydants, tels que les polyphénols, les tanins et les anthocyanines. Pour cette raison il préviendrait les maladies cardiaques et le cancer. Les tanins diminuent la pression artérielle et stimulent le système immunitaire alors que les anthocyanines protègent les vaisseaux sanguins et réduisent l'inflammation. D'autres fruits riches en anthocyanines sont notamment les myrtilles (bleuets), canneberges, mûres, framboises noires, cassis et raisins rouges.

Enfin la grenade aurait des propriétés antibactériennes et soulagerait les symptômes d'ostéo-arthrite. Elle est aussi riche en fer (qui aide à oxygéner l'organisme) et en vitamines A, C et E.