



## TO YOUR HEART!

# Revisiting Risk Factors – Updates in Hypertension and Diabetes

By Narendera Singh MD

I recently returned from the American Heart Association Annual Scientific Sessions in Orlando, Florida. Each year at these meetings new advances in cardiovascular medicine are presented and discussed. Two major new stories emerged that I think are important as we work towards preventing heart attacks strokes and cardiovascular death.

A study sponsored by our National Institute of Health entitled SPRINT looked at individuals over the age of 50 who had hypertension and other risk factors. They randomized them to the standard strategy of lowering systolic blood pressure (top number) to below 140 mmHg versus a target of 120 mmHg. In September of this year, this 9361 patient study was ended early because of a significant benefit in favor of the lower blood pressure target. Patients had been followed-up for roughly three years and in the lower blood pressure group, death was reduced by 27%, heart failure was reduced by 38% and heart attacks and strokes also trended in a favorable direction. Intensive blood pressure lowering as conducted in this trial did result in some side effects. There was a higher risk of fainting, kidney injury and electrolyte abnormalities however the net benefit clearly favored the lower blood pressure target.

What does this mean for us? The first message is that we should be more aggressive in terms of our lifestyle and dietary approaches to maintaining a low blood pressure. Restricting salt intake, moderating alcohol, exercising regularly and avoiding medications that can raise blood pressure such as the anti-inflammatory agents will help us prevent hypertension in the first place. However, if you already have hypertension discuss these results with your doctor and see if the more intensive target is right for you since it has the potential to save life!

The second major study was entitled EMPA-REG OUTCOMES. This study, coordinated out of Canada, looked at a new class of diabetes medications called SGLT-2 inhibitors. Drugs in this class allow diabetics to release excess glucose through the urine. In doing so the patient's blood pressure is reduced and there is a modest weight loss of about 5-10 pounds. Empagliflozin (Jardiance) lowers blood sugar to the same degree as other diabetes medications. This 7020 patient study was also terminated early after just 3 years because of a significant benefit in favor of using the new medication versus conventional diabetes drugs. For the first time ever a diabetes drug has shown a survival benefit-reducing death by 32%, heart failure by 35% but with no significant difference in terms of heart attacks or strokes.

While these results are impressive, the challenge will be affordability. If you have diabetes, first start with improved dietary measures and inexpensive metformin. If the diabetes control is not optimal then at this point it is worthwhile to discuss with your physician using the new agent as second line therapy to improve your long-term survival.■



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