



Timing of Hypertension Pills Important

If you have high blood pressure then the time at which you take your blood pressure pill might be very important in determining the risk you face of heart and kidney disease. According to a new study by Italian researchers, a simple switch in the timing of the pill might normalise blood pressure and provide patients with a healthier life.

Hypertension patients can be broadly into two kinds: dippers – patients whose blood pressure dips at night and non-dippers – those whose high blood pressure does not dip at night. When it comes to blood pressure, dippers are better off. Healthy people normally experience a drop of 10-20% in their blood pressure at night. While the reason for this is not known, it is believed that this gives arteries a much needed rest.

Patients whose high blood pressure does not dip at night generally fare worse than other hypertension patients and develop more severe heart disease. They are also more prone to kidney disease which can worsen to the point of dialysis.

Most patients with hypertension have to take two or three medications for their condition. To check the effects of the timing of these medications, researchers from the Second University of Naples undertook an easy trial – they asked 32 volunteers, all non-dippers with kidney disease to change the timing of one of their medications from a morning to bedtime dose.

Over a two month study period, the researchers found that nearly 90% of these high-risk patients started recording blood pressure dips at night. They recorded a 7 point drop in night time blood pressure on average without any side effects or increase in blood pressure during the day.

A key sign of kidney function was also found to have improved significantly, reported Dr. Roberto Minutolo in this month's American Journal of Kidney Diseases. While the new study is very small, it finds support in similar European studies that also

suggest a bedtime dose switch for non-dippers.

Based on these studies, doctors at Baltimore's Johns Hopkins University are now planning a larger study to assess whether taking a hypertension medication at bedtime can improve the health of hearts and kidneys of patients.

Commenting on the seriousness of non-dipping, Dr. Joseph Vassalotti of the National Kidney Foundation said that two-thirds of chronic kidney disease patients, and at least 10 percent of the general population, were estimated to be non-dippers. In his opinion, very few patients however are actually aware of this problem.

While it is easy to confirm non-dipping with a simple 24-hour blood pressure monitor, most patients never get themselves checked because it is not covered by insurance. And most patients who take several once-a-day pills swallow them all in the morning, meaning they all start wearing off around the same time, said Dr. Gina Lundberg of St. Josephs Hospital in Atlanta.

It does make good sense to take some in the morning and some in the evening, said Dr. Lundberg, a spokeswoman for the American Heart Association. Everyone carries an internal clock that is determined by genes and affects health and many of the body's biological rhythms being circadian they fluctuate on a 24-hour cycle.

Blood pressure is the best known example of this with maximum jumps in pressure being recorded in the early morning hours when the body produces more stress hormones. That is also the reason why most heart attacks and strokes occur in the morning.

The night time dipping problem has gotten far less attention. The new Italian study marks an important advance, said Dr. Mahboob Rahman of the University Hospitals of Cleveland. We know now that you can change medication timing and lower blood pressure at night, he explained.

He however cautioned patients from switching

over to bedtime dosing without medical advice and added that it has not yet been confirmed that such a switch truly gives non-dippers better overall health.