The Silent Killer - Hypertension

Left to right: Philip Shaver, MD, moderator, and Damon Kelsay, MD

Hypertension is the most common reason for office visits of non-pregnant adults in the United States, and the most common cause for use of prescription drugs.The number of patients with hypertension is likely to grow as the population ages, since either pure systolic hypertension or combined systolic and diastolic hypertension occurs in more than onehalf and up to three-fourths of patients over 65 years of age. In honor of National High Blood Pressure Month, Healthy Living magazine recently assembled two prominent physicians from Eisenhower Medical Center to discuss this “silent” killer.The panel included Damon Kelsay, MD, and Philip Shaver, MD, both Board Certified Cardiologists at Desert Cardiology Consultants’ Medical Group, Inc., on the Eisenhower Medical Center campus.

Dr. Shaver: Only 34 percent of patients with hypertension have their blood pressure under adequate control, defined as less than 140/90. Damon, let’s discuss how we take blood pressure, and whether in most doctors’ offices we are actually doing it correctly. The following are some of the factors that the American Heart Association says are correct:The patient should be comfortably seated for five minutes before measuring the blood pressure. The feet should be flat on the floor, not dangling, and the legs should be uncrossed (crossing your legs actually increases your blood pressure). The inflatable bladder within the arm cuff should be at least 80 percent of the circumference of the arm.The patient needs their arm bare, and not to have recently consumed coffee or smoked. The proper way to take the blood pressure is to “palpate” or feel the blood pressure in the wrist, and make sure you inflate the cuff above the point at which it disappears. Damon, any comments on what we should be doing?

Dr. Kelsay: Instead of palpating, I auscultate [listen with a stethoscope] while I’m inflating the cuff. Most of the patients we have who are checking their blood pressure at home are using automated Omron®-type devices, and so feeling [palpitation] or listening [auscultation] is not necessary.

Dr. Shaver: What do you think about home blood pressures? I am a big proponent of that.

Dr. Kelsay: I am too. It has been very useful in not over-medicating patients, but I always have them bring the home blood pressure cuff into the office so we can correlate it with ours.

Dr. Shaver: I quoted a target level of less than 140/90.What do these numbers mean?

Dr. Kelsay: The systolic (upper number) pressure is the number at which the pulsing flow of blood is first heard, as the blood pressure cuff is deflated. The diastolic (lower number) pressure is the number at which the pulsing flow of blood is no longer heard, as the blood pressure cuff is further deflated.

Dr. Shaver: There was a time where the systolic blood pressure was thought to be less important than the diastolic. In fact, there was a myth years ago that you added the patient’s age to 100, and that was appropriate blood pressure. What do you think of that?

Dr. Kelsay: I think that’s nonsense.We have seen, clearly, that systolic hypertension is a killer and a profound killer in our elderly population. And, it’s a reflection of significant atherosclerotic disease or plaque building up in the arteries.

Dr. Shaver: After the age of 50, the systolic blood pressure greater than 140 is a much greater risk factor than diastolic blood pressure. Isolated systolic hypertension, which is what we see predominantly in our elderly patient population, means the diastolic blood pressure is normal. Isolated systolic hypertension has a two- to four-fold increase in heart attacks and thickening of the heart muscle, which is harmful. Normal blood pressure is now said to be less than 120, and less than 80.What we used to call “high normal,” is now called “pre-hypertension,” from 120 - 139 systolic or diastolic 80 - 89.The most important thing our reader is going to understand is that high blood pressure is a continuum.Anything above about 115 systolic and 75 diastolic increases risk.

Dr. Kelsay: When you see your blood pressure getting into that range, it is a wake-up call that you need to be making some serious lifestyle changes – limiting junk food to as little as possible (none is ideal), and eating a diet that is high in soluble fiber, low in fat, and including fruits, vegetables and whole grains.

Dr. Shaver: Dr. Kelsay, describe the role of salt in causing hypertension.

Dr. Kelsay: There are certain patients where it seems to have more of an impact than other patients, and it just depends on the sub-type of hypertension. In a population in their 70s and even 80s, although salt restriction is important, diet restriction alone is probably not going to do the trick, as many of these patients require multiple medications to achieve currently recommended blood pressure levels. In younger hypertensives, particularly in African-Americans, it is possible that salt restriction may have more impact.

Dr. Shaver: As stressed in past discussions, being a label reader is important.

Dr. Kelsay: Our patients also tend to eat out a lot.There’s a tremendous amount of salt in restaurant-prepared foods.

Dr. Shaver: What is “essential hypertension?”

Dr. Kelsay: There’s nothing “essential” about it! It is probably more appropriately termed primary hypertension.

Dr. Shaver: The words “essential hypertension” led to the myth that as you got older, you needed to have this blood pressure, because it was “essential” to maintain organ profusion.Are there curable or secondary forms of hypertension?

Dr. Kelsay: In terms of secondary hypertension (hypertension caused by some other specific disease process), the most common cause we tend to see in our patient population is caused by renal artery stenosis [narrowing], or other kidney-related diseases.

Dr. Shaver: I would add sleep apnea as another important cause of secondary hypertension. Dr. Kelsay, what is your basic work-up for a person who comes to you with hypertension?

Dr. Kelsay: You need a comprehensive metabolic panel, lipid panel, urinalysis, CBC (complete blood count) and an EKG (electrocardiogram).

Dr. Shaver: Let’s talk about drugs. There was a study that was published called the ALLHAT trial, and this was the largest hypertensive trial ever done. Interestingly, 57 percent of the people in the ALLHAT trial were over 65 years of age, and they had to have hypertension, and at least one other risk factor for coronary artery disease.The premise of this trial was to test a relatively inexpensive drug, a mild diuretic, versus a class of drugs that we commonly use called ACE inhibitors, versus another class of drugs called calcium channel blockers, specifically amlodipine. In the end, they actually pretty much came out in a dead heat.The supposition was therefore – Why not use the cheaper one? Do you start cheap, and add on?

Dr. Kelsay: I look at how many diseases I am dealing with. If they have known coronary disease, I would start them on an ACE inhibitor and/or a beta blocker. However, if you’re talking about an individual with isolated mild hypertension, who comes in with no other complications, then using a diuretic to start, plus lifestyle modification, may be sufficient.

Dr. Shaver: Patients who have diabetes, metabolic syndrome or renal disease – particularly if they’re spilling protein – should always be on a class of drug called ACE inhibitors or angiotensin receptor blockers (ARBs), and/or both.There is proof that these delay renal failure in people with diabetes and prevent progression to diabetes as well. Coronary patients, if they have angina, should also use a beta blocker.These cases almost always require two to three medications to control blood pressure. What’s your opinion regarding the importance of potassium (present in salt substitutes), since the majority of our patients are on a diuretic?

Dr. Kelsay: I monitor potassium and magnesium very closely. Our patients often tend to have borderline kidney insufficiency, that requires particularly close monitoring of the potassium.

Dr. Shaver: Norman Kaplan, who is really an expert on hypertension, once said, “It’s a shame that high blood pressure doesn’t hurt just a little.” These patients are feeling fine, but they are sitting on a time bomb. However, when you give them medicine, they may feel lousy.

Dr. Kelsay: It’s the silent killer.

Dr. Shaver: To summarize, it is important that our patients realize that hypertension is a continuum.That a blood pressure under 120 or under 80 is attainable.We have to be cautious with our elderly patients, as we talked about with their diastolic blood pressure. It is not safe to assume the blood pressure of 130/85 is a normal blood pressure, it isn't – even though we used to call 130 normal. If your blood pressure is at 140, for instance, your risk is doubled that of someone whose blood pressure is 120.There are things you can do in your lifestyle to help, because most patients would prefer not to take the medicines that are available. However, once on medication, it is rare that one medication is going to do the job. By using two or three medications, we can use lower doses of each one and potentially avoid their side effects.

Recommended Hypertension Web site: www.nhlbi.nih.gov