Isolated Systolic Hypertension in the Elderly

TO THE EDITOR: Home blood-pressure measurement with the use of an automatic, portable, battery-operated device is easily learned by patients and is an inexpensive way to confirm (or cast doubt on) hypertension detected in the office setting. The elderly man described by Chobanian (Aug. 23 issue) in his Clinical Practice article might prove to be normotensive with home blood-pressure monitoring.
measurement, in which case he would not need medication. If hypertension were confirmed by home blood-pressure measurement, lower measurements recorded in his blood-pressure diary after institution of therapy would provide excellent confirmation of a favorable drug effect. Both American and European hypertension societies have endorsed home blood-pressure measurement as an adjunct to conventional office blood-pressure measurement, especially in identifying white-coat and masked hypertension. This simple and inexpensive technique should be considered in the initial evaluation and long-term care of most patients with hypertension.

Irwin Hoffman, M.D.
Lovelace Medical Center
Albuquerque, NM 87107
irw.hoffman@stvin.org


TO THE EDITOR: Although the treatment of hypertension is currently centered on absolute blood pressure, it is worth discussing a relatively new definition of hypertension. It uses the causes of high blood pressure to stratify the extent of hypertension. According to this definition, “normal” blood pressure is a pressure of approximately 115/75 mm Hg, with no cardiovascular disease, few cardiovascular risk factors, no early disease markers, and no end-organ damage. “Stage 1” hypertension includes intermittent blood-pressure elevations or early cardiovascular disease, several cardiovascular risk factors, and the presence of early disease markers but no end-organ disease. “Stage 2” includes sustained blood-pressure elevations or progressive cardiovascular disease, many risk factors, the presence of early disease markers, and early signs of end-organ disease. Patients with marked and sustained blood-pressure elevations or advanced cardiovascular disease, many risk factors, and early disease markers along with overt end-organ disease have “stage 3” hypertension. This definition challenges physicians to treat all aspects of hypertension, not just a blood-pressure value, and should be considered in managing hypertension in all age groups, including the elderly.

John R. Kapoor, M.D., Ph.D.
Stanford University
Stanford, CA 94305


THE AUTHOR REPLIES: I agree with Hoffman’s statement that monitoring blood pressure at home is of value in all persons with elevated office blood-pressure levels in order to rule out the presence of so-called white-coat hypertension. Home blood-pressure measurements are also useful for assessing responses to antihypertensive drug therapy and improving adherence to medications. However, since the patient described in my Clinical Practice article had stage 2 hypertension with considerable elevation of systolic blood pressure, the probability of his having pretreatment systolic levels consistently below 140/90 mm Hg at home would be very low. Accordingly, treatment guidelines recommend initiating therapy quickly and at times starting with two antihypertensive drugs for most persons with stage 2 hypertension.

Most blood-pressure monitoring devices, including those that are automatic and battery-operated, as mentioned by Hoffman, can be useful for measuring blood pressures at home. Acceptability to the patient is an important consideration, but whatever instrument is selected, it needs to be checked periodically for accuracy in a clinical setting.

The definition of hypertension that Kapoor alludes to uses not only blood-pressure values but also levels of other cardiovascular risk factors and the presence or absence of target-organ damage in the classification scheme. Although such an approach is attractive conceptually, since it considers overall cardiovascular risk, no clinical trial data are available yet to guide the clinician on intervention strategies, were such a classification used. In the absence of clinical trial data, we should continue to use the current classification and to provide treatment with the goal of reducing blood-pressure levels to less than 140/90 mm Hg in most patients with hypertension and to less than 130/80 mm Hg in patients with diabetes, chronic renal disease, coronary heart disease, and congestive heart failure. In addition, other risk-factor abnormalities should be treated aggressively.

Aram V. Chobanian, M.D.
Boston University Medical Center
Boston, MA 02118
achob@bu.edu
Medical Mystery: An Unusual Complication of Colonoscopy — The Answer

TO THE EDITOR: The medical mystery in the October 4 issue1 involved a 69-year-old man with left inguinoscrotal erythema, swelling, and tenderness after colonoscopy, during which he had undergone polypectomy of a moderately dysplastic tubular adenoma of the sigmoid colon. A computed tomographic (CT) scan of the patient’s pelvis revealed free air in the left hemiscrotum (Fig. 1A). Further CT images of the abdomen and pelvis revealed marked diverticular disease affecting the distal colon and widespread gas in the retroperitoneal tissues, spreading along the left renal fascia (Fig. 1B) and along the left psoas muscle down the left paracolic gutter, extending to the anterior abdominal wall and into the left hemiscrotum. A diagnosis of Fournier’s gangrene secondary to retroperitoneal perforation of the colon during colonoscopy was made.

The patient underwent immediate exploratory laparotomy, during which necrosis of the left retroperitoneal tissues adjacent and caudal to the sigmoid colon was seen. No obvious site of colonic perforation was identified. A Hartmann’s procedure was performed. At the end of this procedure, the erythema of the inguinoscrotal region that was present on physical examination at presentation had progressed to obvious gangrene of the scrotum and perineum (Fig. 1C), requiring repeated radical débridement. It is unclear whether the perforation occurred at a diverticulum or the site of the polypectomy.

Figure 1. Fournier’s Gangrene Associated with Retroperitoneal Perforation of the Colon.
An axial view of a CT scan of the patient’s pelvis shows free air in the left hemiscrotum (Panel A, arrow). An axial view shows diverticular disease affecting the distal colon and widespread gas in the retroperitoneal tissues, spreading along the left renal fascia (Panel B, arrows) and extending into the left hemiscrotum, causing gangrene of the scrotum and perineum (Panel C).

Marc A. Gladman, Ph.D.
Shukri K. Shami, M.S., F.R.C.S.
Queen’s Hospital
Essex RM7 0AG, United Kingdom

Editor’s note: We received 740 responses to this medical mystery, from 63 countries. Sixty percent...