

Invited Commentary

LESS IS MORE

Hypertensive Urgency—Is This a Useful Diagnosis?

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In this issue of *JAMA Internal Medicine*, Patel et al¹ interrogate the entity known as *hypertensive urgency* by studying patients who presented within the Cleveland Clinic system with



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severe hypertension but no symptoms. We are not told why these patients sought medical attention. The authors' very reasonable hypothesis is that "ambulatory patients with hypertensive urgency would have low rates of cardiovascular events in the short term and that referral to the hospital would not improve outcomes."¹ The study substantiates this conjecture. Perhaps unsurprisingly, patients who felt well turned out to be well, and experienced a very small number of serious sequelae. Only 0.7% of the Cleveland Clinic patients were referred to hospital for blood pressure management. These 426 patients triggered higher health care costs but no difference in outcomes. They underwent 748 tests, only 41 (5.5%) of which had abnormal results. All 60 computed tomographic scans ordered (49 of the head and 11 of the chest) had normal findings. These evaluations must represent unnecessary exposure to radiation and potential harm to patients.

So, with the term *hypertensive urgency*, we seem to have a condition, defined by a raised blood-pressure reading, that causes an enormous amount of anxiety to patients and clinicians alike but that does not require hospital admission and has a good prognosis. Malignant hypertension used to be a rare diagnosis with a poor prognosis; now we are told that hypertensive urgency occurs in 4.6% of all office visits in an American health care system, while its implications seem much less serious. It is time that we acknowledged that disease in the absence of symptoms may be a very different phenomenon from symptomatic disease, or as Hoffman and Cooper^{2(p1124)} put it, "we must recognize the enormous difference between a disease that presents clinically and 'the same' disease that is found only because we have decided to search for it, in the absence of compelling clinical concern." It seems likely that this enormous difference is driving much diagnostic drift and overdiagnosis, compounded by the perverse incentives of pay-for-performance systems.

Some confirmation of the latter is provided by a study³ that reported national trends in hospital admissions for various hypertension diagnoses. The main findings were of substantial rises in the number of admissions for both malignant hypertension and hypertensive encephalopathy after 2007, whereas discharges for essential hypertension fell, and there was no change for the combination of the 3 diagnoses. The implication is that patients who would previously have been labeled as having essential hypertension were being diagnosed with malignant hypertension or hypertensive encephalopathy. The increased seriousness of the diagnoses was not correlated with the levels of morbidity that might have been expected and, al-

though health care costs rose, length of stay fell, and mortality for malignant hypertension fell markedly. The conclusion was that these findings were not real changes in the severity of disease but changes dictated by pressures to code according to severity in order to be remunerated. Such bureaucratic procedures drive overdiagnosis with no understanding of the additional burden of fear imposed on both patients and clinicians as a direct result.

As a biometric variable that changes all the time in response to experience and emotion, BP is a conundrum. It is never static, so a single isolated reading can be very misleading, especially if the patient is frightened, unwell, or stressed. Hypertension in itself is not a disease but a risk factor for other diseases. It has been studied for decades, and yet there seems to be a fundamental confusion within the current classification. The most serious category is a hypertensive emergency, when symptoms and signs suggestive of encephalopathy are combined with very high BP readings. This situation always requires hospital admission. Much more common is chronically raised BP with readings persistently raised readings above 160/100 mm Hg⁴; this is undoubtedly a significant risk factor for diseases such as coronary heart disease or stroke. Reducing these levels of BP through lifestyle modification or medication lowers the risk and benefits patients. A third intermediate category is *hypertensive urgency*. In the absence of symptoms, this turns out to be largely illusory and no more serious than a single isolated reading of high BP. Nevertheless, people are being admitted to hospital and treated with powerful medications, incurring unwarranted costs, and causing harm to patients in terms of needless fear, stress, and the adverse effects of medication.

More than 80% of the patients in the Cleveland Clinic study had BP above the stated target of 140/90 mm Hg 1 month after the diagnosis of hypertensive urgency and more than 60%, 6 months afterwards. Yet more than one-half of these patients were already taking 2 or more antihypertensives and more than one-third were taking 3 or more. Every frontline clinician is well aware how difficult these BP targets are to achieve, especially in the context of systolic hypertension in older people. Most older patients require multiple medications with all the challenges these pose in terms of drug interactions, hypotensive falls, and the burden of care.⁵ Perhaps the wise thing to do in the context of a very low incidence of major cardiac events recorded in this study, even in patients with markedly raised readings, is to move toward a concept of "good enough" BP, in line with the values and aspirations of individual patients rather than the counsel of coercive perfection that permeates so many contemporary guidelines.

In their introduction, Patel et al¹ cite a reference to suggest that asymptomatic severe hypertension accounts for as many as 27% of medical emergencies seen in emergency

departments.⁶ The fact that the authors do not seem to question this extraordinary statistic provides a telling insight into the current state of medicine and the extent to which numbers and symptoms have become disconnected within biomedical thinking. In fact the relevant reference is a 20-year-old prevalence study that makes no mention of the patients being asymptomatic and provides an impressive list of

presenting symptoms known to be suggestive of severe hypertension. These include headache, epistaxis, faintness, psychomotor agitation, chest pain, dyspnea, and neurologic deficit. For the practicing clinician, the study by Patel et al¹ provides the comforting reassurance that sick people are much more likely than well people to have a serious condition that warrants intervention.

ARTICLE INFORMATION

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