Awareness can prompt the search for clinical zebras

I recently read a book of personal reflections on approaching patient care by Roger Cass, an experienced internist/rheumatologist, *Diagnosis: Clinical Skills In Medicine*.[1] On the heels of that, reading the short paper by Mandzhieva et al[2] and the commentary by Rodriguez[3] in this issue of the *Journal* on the median arcuate ligament syndrome (MALS) prompted me to consider the process by which I evaluate patients with certain symptoms. What distinguishes insightful quick diagnosis from premature closure (other than that the diagnosis turns out to be incorrect in the latter)?

As a rheumatologist, I am frequently consulted in the hospital to evaluate acutely ill patients who have a panoply of symptoms, laboratory findings, and sometimes physical examination findings extending across several organ systems. By the time we are asked to see these patients, we are often starting way down the differential diagnosis list, seriously considering the unusual if not the outright arcane possibilities. We are asked to look for the zebras. But that is not usually the case for patients ultimately diagnosed with MALS and others who experience common, regionally localized pain symptoms at their initial presentation to physicians.

As exemplified by the patient described by Mandzhieva et al,[2] patients present to us every day with common and seemingly simple "complaints." At what point do we start to look for zebras when we are hearing familiar hoofbeats? Or for that matter, when do we start expending a patient's time, money, and sometimes anxiety on efforts to prove those hoofbeats are indeed from horses? We likely all have slightly different philosophic approaches in making these decisions, and our individual thresholds will vary based on the situation: specific patient needs, time pressures in the office, referring physician, and our anecdotal memory of recent similar patients, which introduce bias to our clinical analysis.

After this past week, when I was seeing patients in clinic with internal medicine residents, I reflected on why I had pontificated the way I did on the specific use and avoidance of testing for less common entities. In a rheumatology clinic, testing decisions invariably involve serologies, for which my mantra is that the specific clinical history and physical examination should dictate specific serologic testing, and panserologic testing should not be obtained to divine the diagnosis. What specific experiences have led me to this relative testing nihilism compared with some of my highly skilled colleagues? I am not sure.

What of the patient discussed here,[2] who had abdominal pain, normal basic laboratory tests, and a minimally suggestive examination? As I read the clinical presentation, I wondered at what point I would have embarked on an aggressive diagnostic approach. The history is truncated, but I am sure the decision to embark on a series of initially focused tests was influenced by the "vibe" the physicians received from the patient (much tougher to glean from a virtual visit in this age of COVID-19). Perhaps the decision was driven by the recognition of chronicity of related symptoms, or that this specific clinical event was far more severe than what was anticipated from reflux

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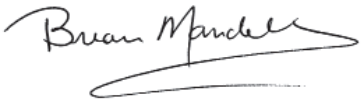
alone, or that the symptoms didn't respond to treatment as anticipated. The ultimate suspected diagnosis attained from imaging was not likely anticipated.

It is not certain whether the pain associated with MALS is of vascular or neurogenic origin, or both.[3] Several other syndromes can present with intermittent abdominal pain from intermittent gut ischemia. Once atherosclerotic and thromboembolic causes are believed to be less likely, diagnostic considerations are dominated by uncommon conditions. In my clinic, vasculitic syndromes are the initial ones we try to confirm or exclude, and this invariably involves vascular imaging. Although imaging provides far more direct information than serologies, the results are not always straightforward. The pattern of findings (stenoses, aneurysms, or dissections), in the context of the clinical history and examination, helps to distinguish atherosclerosis and vasculitis from their mimics.[4,5] As Rodriguez points out, diagnosing the uncommon requires "meticulous evaluation to rule out more common pathology."[3]

Circling back to my original effort to understand what prompts me, or any clinician, to look hard for the uncommon causes of common symptoms, it seems to be the gestalt that speaks to some part of the total patient presentation that doesn't quite fit the expected. The relative value of this gestalt stems from the breadth of our personal experience, which is always limited. We may not all be confronted on a daily basis with the specific challenge of deciding whether to treat a patient for MALS. But reading about this and other less common syndromes contributes to our warehoused cognitive experience and, hopefully, provides impetus for a bit of extra reflection before offering up our diagnosis.



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