We read with interest the commentary by Agarwal and Lang titled “PoCUS: Just because we can doesn't mean we should.”[1] We wholeheartedly agree with the authors’ overarching theme that we should be mindful of overtesting to avoid potential downstream harms. However, we contend that the authors’ use of PoCUS for suspected, ruptured abdominal aortic aneurysm (AAA) as an example is misguided.

Agarwal and Lang raise the concern of incidental findings associated with PoCUS, offering an example of a 51-year-old man with suspected, ruptured AAA in whom the detection of a renal mass resulted in nephrectomy. In general, we agree that the potential harm of detecting incidentalomas from *indiscriminate* renal imaging will outweigh the benefits. However, in the offered case of a 51-year-old patient with undifferentiated flank pain, acute ureterolithiasis will be significantly more prevalent than ruptured AAA. As such, renal ultrasonography would be both reasonable and safer than alternative imaging such as computed tomography (CT), which carries the additional, potential harm of radiation exposure;[2] CT radiation-related risk will be particularly relevant in the 51-year-old patient. The sonographic finding of non-severe hydronephrosis in a presentation consistent with renal colic may obviate CT and its associated radiation exposure.[3] Moreover, CT is more likely than focused ultrasonography to identify incidentalomas, including adrenal adenomas.[4] To this point, PoCUS when used appropriately, may reduce the incidence of incidentalomas.

Secondly, it is important to distinguish between the screening of asymptomatic patients and a focused diagnostic workup. The authors correctly note that screening for AAA has the highest yield within the age group of 65 to 85 years old.[5] However, in their example of the 51-year-old who - albeit unlikely - presents with suspected, ruptured AAA, it will be inappropriate to apply the same risk-benefit analysis as in a screening population. The authors note that PoCUS should be performed in patients with a “reasonably high pre-test probability or likelihood of having a AAA.” However, it is difficult to conceptualize a “reasonable”, pre-test probability in which case the risk of ultrasonography of suspected, ruptured AAA will outweigh the benefit. Take a theoretical patient with a pre-test probability of 2% which would be considered relatively low. In this scenario, you would need to perform PoCUS on 50 patients to identify one patient with a ruptured AAA. We argue, given the currently available evidence,[2-4] that it would be worthwhile to expeditiously PoCUS-scan 49 patients without AAA in order to identify one patient that does have ruptured AAA, a potentially catastrophic but treatable condition if identified promptly at the bedside.

References

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