

## Correspondence

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### Response: Re: C-Reactive Protein versus Erythrocyte Sedimentation Rate: Implications Among Patients with No Known Inflammatory Conditions

*To the Editor:* We agree with Dr. Singh that both erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) are still useful in the evaluation of inflammatory disorders. The ESR increase during inflammation is slower than that of CRP, and the decrease after inflammation resolution is also slower, as reviewed elsewhere.<sup>1</sup> This may explain why the discordant pattern of high ESR with normal CRP is associated with resolving inflammatory conditions in hospital patients<sup>2</sup> and general practice.<sup>3</sup> Moreover, ESR is known to be affected by noninflammatory conditions such as changes in red blood cells (size, shape, or number) and by the presence of noninflammatory molecules in the serum such as immunoglobulins (eg, in multiple myeloma).<sup>1</sup> Recent meta-analysis indicates that, despite observed heterogeneity among studies, ESR and CRP have similar diagnostic accuracy in assessing acute inflammation, especially in orthopedic conditions.<sup>4</sup> Furthermore, the combined use of ESR and CRP enhances diagnostic accuracy.<sup>4</sup> Our study was performed in subjects with no known inflammatory disorders and therefore cannot address this point. The joint request of ESR and CRP is a common (although not recommendable) practice in asymptomatic or mildly symptomatic individuals. In that setting, the discordant pattern of high ESR and normal CRP was associated with greater age, whereas the pattern of elevated CRP and normal ESR was associated with higher body mass index.<sup>5</sup>

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#### References

1. Bray C, Bell LN, Liang H, et al. Erythrocyte sedimentation rate and C-reactive protein measurements and their relevance in clinical medicine. *WMJ* 2016;115:317–21.
2. Colombet I, Pouchot J, Kronz V, et al. Agreement between erythrocyte sedimentation rate and C-reactive protein in hospital practice. *Am J Med* 2010;123:863.e7-13–863.13.
3. Hansson LO, Carlsson I, Hansson E, Hovelius B, Svensson P, Tryding N. Measurement of C-reactive protein and the erythrocyte sedimentation rate in general practice. *Scand J Prim Health Care* 1995;13:39–45.
4. Lapić I, Padoan A, Bozzato D, Plebani M. Erythrocyte sedimentation rate and C-reactive protein in acute inflammation. *Am J Clin Pathol* 2020;153:14–29.
5. Alende-Castro V, Alonso-Sampedro M, Fernández-Merino C, et al. C-reactive protein versus erythrocyte sedimentation rate: implications among patients with no known inflammatory conditions. *J Am Board Fam Med* 2021;34:974–83.

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