"Comment on: [Role of regional anesthesia in patients with acute sickle cell pain: A scoping review].

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To,

The editor,

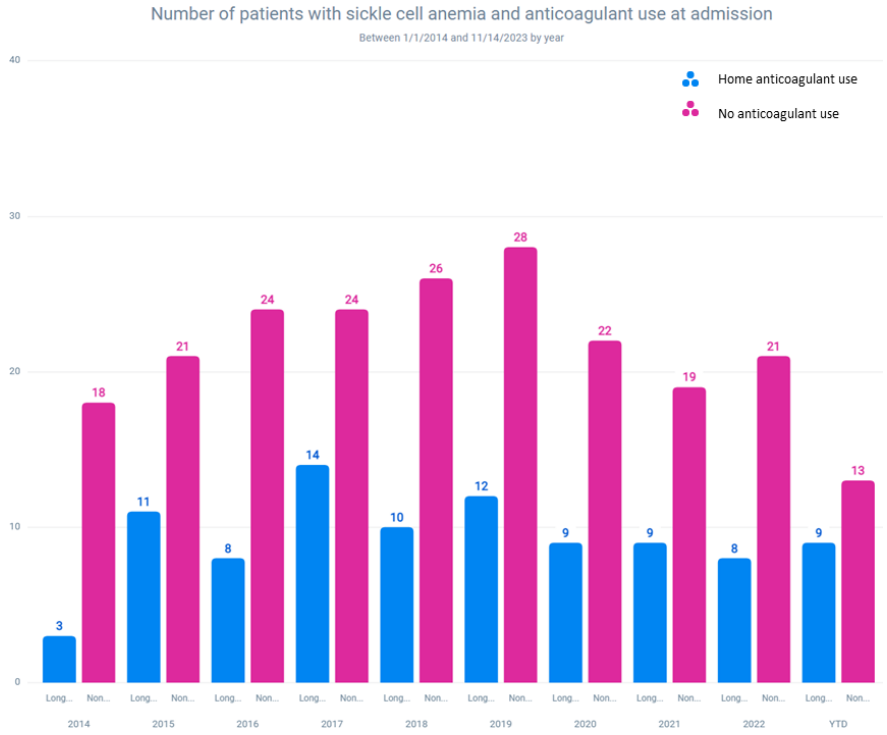
We read with interest the review elaborating on the role of regional anesthesia (RA) in patients with acute sickle cell pain by Rizvi and colleagues. The authors correctly summarize that RA can be a vital component of a multimodal analgesia regimen in patients getting admission for sickle cell crisis (SCC) (1). As seen in the review the main modality often offered for these patients is epidural analgesia as truncal pain is a significant component of SCC either due to chest, abdominal or pelvic pain. Lumbar epidurals may also be effective analgesic modality for lower extremity pain.

We would like to highlight a crucial aspect pertinent to performing regional anesthesia in these patients that perhaps was not covered in this comprehensive review. One of the pre-procedural checklists before we can perform a regional anesthesia technique is to ensure that a patient is not at a higher risk of bleeding complications from the procedure. Patients with SCC have a 4-100-fold increased risk of venous thromboembolism (VTE) and recurrent VTE, and thus there is significant benefit of decreasing morbidity and mortality with long term anticoagulant usage (2). Consequently, a significant proportion of patients with sickle cell disease have a history of ongoing anticoagulant use whether they have a SCC or not (3). In fact, the American Society of Hematology guidelines suggests indefinite anticoagulation in SCD patients having unprovoked VTE (4).

Administration of RA such as epidural analgesia and deep peripheral nerve blocks may be contraindicated in such situations if one were to abide by the American Society of Regional Anesthesia (ASRA) guidelines on the performance of regional anesthesia in patients receiving antithrombotic therapy (5). To exemplify, we present our institutional experience on the prevalence of anticoagulant usage in patients being admitted for SCC. Using the slicer-dicer tool in our institutional electronic health care record (EPIC Systems, Verona, WI) we found a staggeringly high percentage of patients admitted for sickle cell crisis with a pre-admission use of anticoagulants (see Figure 1). In fact, the trend in the use of pharmacologic thromboprophylaxis in hospitalized adolescent patients with SCC steadily increased in the last decade owing to the increased risk of VTE (6,7). Multiple sites of pain a patient with SCC can present with might be another factor that limits the effective use of RA techniques in these patients (8). Furthermore, children with sickle cell disease are at increased risk for bloodstream infections (9). The prevalence of bacteremia in febrile patients with sickle cell disease can be as high as 1.9% (10) making offering regional anesthesia modalities in sickle cell disease patients even more challenging.

To summarize, regional anesthesia can be a great tool in the management of SCC in select group of patients provided the site of pain is confined to single or congruent body areas and if they do not have contraindications in terms of recent anticoagulant usage or ongoing infections.

Figure 1:



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