The prevalence of physicians experiencing work-related musculoskeletal disorders is comparable to that reported among laborers. Traditionally, minimally invasive (MIS) SI joint fusions are performed with the patient-orientated in the prone position, with an incison made inferior to the iliac crest. However, a novel technique that orients the patient in the lateral position potentially enhances ergonomics and ease of approach. The primary objectives are to quantify surgical parameters, describe lateral MIS technique, and identify imaging angle parameters that predict feasibility. A prospective cohort of patients who underwent MIS SI joint arthrodesis in the lateral position was evaluated at UAMS between 2017 and 2019. Median and range of intraoperative blood loss, operative time, revision rate, infection, and total radiation dose were recorded. Sacral inlet and outlet angles were defined and collected to assess for operative candidacy for this approach. The aim is to provide an insight into outcomes and statistics observed from pioneering this style of procedure. A future study comparing traditional peri-operative parameters together with surgical ergonomics is needed.

BACKGROUND

The sacroiliac (SI) joint is a frequently overlooked pain generator for back and hip pain, as it presents with symptoms resembling other spinal disorders. Furthermore, the burden of SI joint disease is high with a prevalence of 15-30% among patients with low back pain; therefore, surgical intervention forms an important treatment modality. Traditionally, minimally invasive (MIS) SI joint fusions are performed with the patient in the prone position, with an incision inferior to the iliac crest. Here, we describe a novel technique that orients the patient in the lateral position potentially enhancing ergonomics and ease of surgical approach.

METHODS

A prospective cohort of consecutive patients who underwent MIS SI joint arthrodesis in the lateral position was evaluated at our institution between 2017 to 2019. Median and range of intraoperative blood loss, operative time, revision/failure rate, and total radiation dose per patient were recorded. Sacral inlet and outlet angles were defined to assess for operative candidacy for this approach.

CONCLUSIONS

This study demonstrated that the lateral technique was a feasible and safe approach with absence of revisions or failures. Operative parameters were comparable to the traditional prone approach. Future studies comparing the ergonomics of the traditional supine approach to the novel lateral decubitus approach are planned.