

Introduction

Lumbar radiculopathy affects approximately 3-5% of the population. Among the leading causes of radiculopathy are degenerative spinal stenosis and lumbar disc herniations, which can contribute to stenosis in the neural foramen, subarticular recess, or central canal. When patients do not respond to conservative management, epidural steroid injections can be considered as the next step. There are three approaches for accessing the epidural space: caudal, interlaminar, and transforaminal. Despite the quantity of these procedures performed, there is no clear consensus amongst interventional spine practitioners regarding the approach based on a patient's history, physical examination, and imaging findings. We explore how various factors may influence approach preferences. Additionally, we asked the respondents which steroid they would consider with an ESI. There are several case reports of spinal cord infarction with the use of particulate steroids in LTFESI.

Methods

A survey created utilizing the Survey Monkey platform was emailed by the IPSIS to all active members and was available on-line on the IPSIS website. The survey comprised of seven questions asking for demographic information including residency specialty, fellowship training, fellowship emphasis on IPSIS guidelines, years in practice, country of practice, and practice setting. There were eleven questions describing clinical scenarios including the pain distribution and the associated pertinent magnetic resonance imaging (MRI) findings. For each scenario, the responder was given options for which type of diagnostic and therapeutic injection the practitioner would choose. The final two questions asked which steroid injectate the responder would utilize for an interlaminar and transforaminal epidural steroid injection.

As the project is devoid of patient-identifiable information, it is exempt from IRB review requirements as per Thomas Jefferson University Hospital policy.

Results

The survey was open for completion during November 2023 - January 2024. A total of 202 IPSIS members responded, with an average of 196 responses to each question. The completion rate was 74%. The survey was available in English only. The most common demographic responses were as follows: Residency training: Physical Medicine and Rehabilitation (PM&R); fellowship completed: ACGME pain; IPSIS guideline-based training: yes; years in practice: less than 5 years; country of practice: USA; practice environment: multispecialty group, private practice.



Figure 1. Survey Demographic Information

Discussion

There was no significant relationship between the practitioner's demographics and their selected approach or choice of injectate. We were unable to elucidate a specific variable that would determine which approach a practitioner might choose. This could be explained by the fact that there was a disproportionate representation of responders: PM&R (62.76%) or Anesthesia (29.59%) trained, as the IPSIS membership is composed of 51.6% Physical Medicine and Rehabilitation and 33.4% Anesthesiology. With the additional type of injectate query, the majority of respondents chose dexamethasone for LTFESI. This follows the guidelines as there are several case reports of spinal cord infarction with the use of particulate steroids, interestingly the second most common response was triamcinolone.

Conclusion

The overall trends for both therapeutic and diagnostic epidural injections were logical given the clinical scenario. However, some questions displayed minor clinically insignificant variability, which would benefit from further clarification and justification.

Despite reports of spinal cord infarction and a black-box warning with use of triamcinolone for L-TFESIs, a significant number of responders to the survey still selected this as first line medication. Further research needs to be conducted to elucidate trends for lumbar ESI as well as delineate the two specialties as these represent the vast majority of IPSIS.

References

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