

## Introduction

- Interventional spine and pain physicians rarely review fluoroscopic images with patients after procedures.
- Patient satisfaction is already high, but there may be ways to further improve the patient experience.
- This study examined the impact of post-procedure fluoroscopic image review on perceived benefit of image review and patient satisfaction.

## Material and Methods

- Single blinded prospective study of patients undergoing non-sedation lumbosacral TFESIs.
- The control group received a scripted verbal explanation of procedure results.
- The intervention group received the same explanation including a review of fluoroscopic images.
- Outcomes measured: Perceived benefit of image review questions and modified Press Ganey Patient Satisfaction Survey administered immediately post-procedure.
- Short-term improvement assessed at two weeks using the Patient Global Impression of Change (PGIC); missing data supplemented with chart review.
- Group responses compared using appropriate statistical tests.

## Results

- 141 participants enrolled: 70 control, 71 intervention.
- Follow-up improvement data available for 58 participants in each group (82%).
- 95.8% of the intervention group found image review helpful to very helpful.
- 68.6% of the control group thought image review would have been helpful to very helpful.
- Confidence in provider was significantly higher in the intervention group ( $p = 0.03$ ).
- No significant differences in short-term improvement between groups.

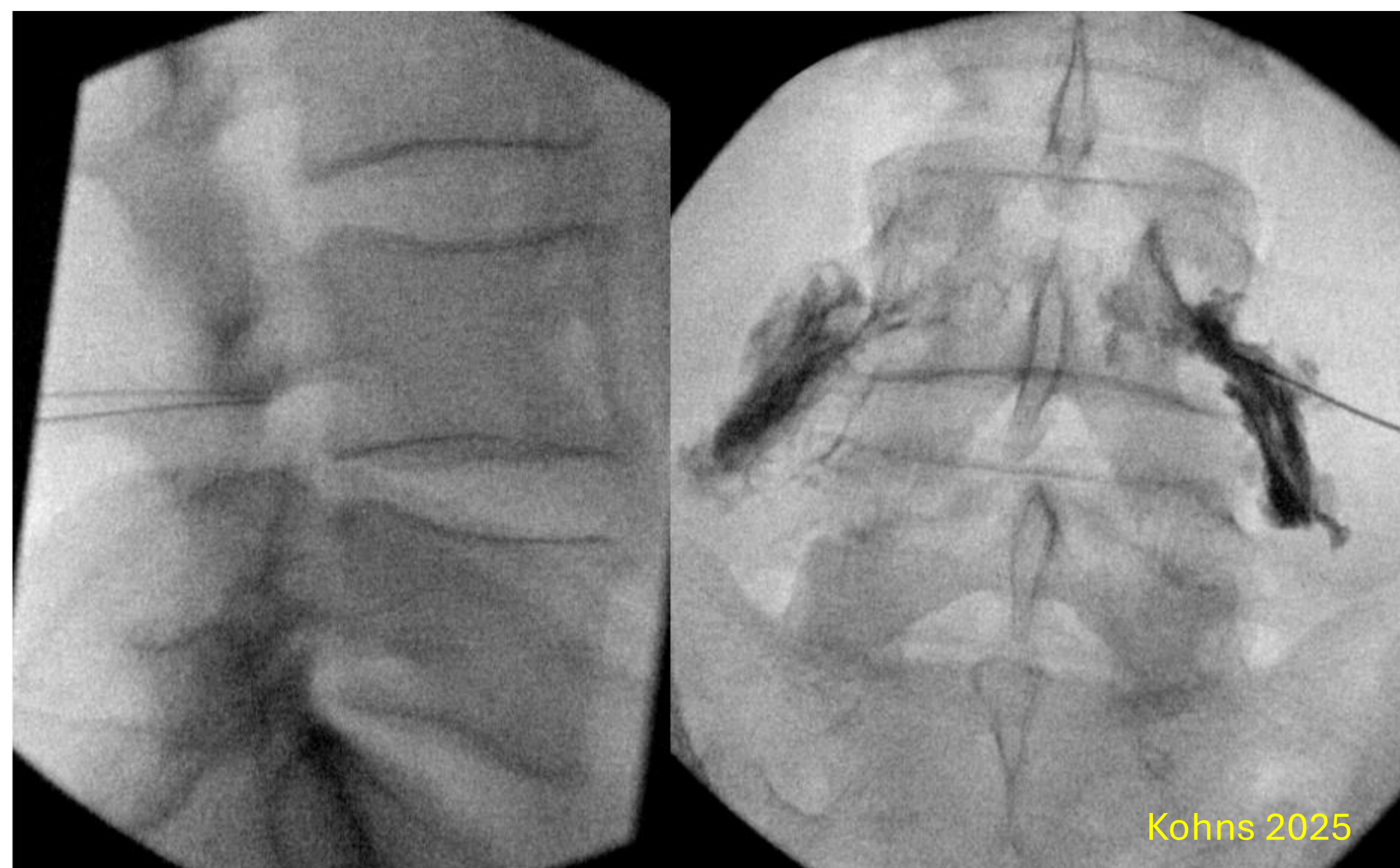


Table 1. Frequency of Provider Ratings by Patient Satisfaction Domains

| Rating Item                  | Likert Rating |    |    |   |   | p-value |
|------------------------------|---------------|----|----|---|---|---------|
|                              | 5             | 4  | 3  | 2 | 1 |         |
| Helpfulness of Image Review* |               |    |    |   |   | < 0.001 |
| Control                      | 29            | 19 | 16 | 0 | 6 |         |
| Experimental                 | 58            | 10 | 3  | 0 | 0 | 0.03    |
| Confidence in Provider       |               |    |    |   |   |         |
| Control                      | 64            | 6  | 0  | 0 | 0 | 0.03    |
| Experimental                 | 70            | 1  | 0  | 0 | 0 |         |

Controls  $n=70$ , Experimental  $n=71$ ; \* = Non-Press Ganey question; **Bold** = significant change  
 $p$  value compares control (no image review) vs Experimental (image review)

Table 2. Frequency observed for worse, no change or improved after spine injection as a function of the control vs intervention group

| Group                       | Injection Outcome |           |          |
|-----------------------------|-------------------|-----------|----------|
|                             | Worse             | No change | Improved |
| Control (No Image Review)   | 0                 | 20        | 38       |
| Intervention (Image Review) | 2                 | 19        | 37       |

Note: Data combined from two-week post-procedure PGIC and alternatively subsequent clinic note.

## Discussions

- Consistent with prior studies, both groups reported high overall satisfaction.
- 95.8% of the image review group found it helpful, compared to 68.6% of the control group who thought it would have been helpful.
- Image review significantly increased confidence in the provider. No differences were observed in other satisfaction domains or short-term improvement.
- Limitations of this include single-center design, uneven proceduralist distribution, potential response bias, difference in perceived benefit questions, and low follow-up on PGIC.
- Future studies may explore how image review impacts patient education, procedural fear, and provider-patient trust.

## Conclusion

- Post-procedure image review is appreciated by patients and increases confidence in providers.
- Image review is a short and simple act that appears to improve the patient experience with interventional spine procedures

## References

- Rekatsina M, Peng PWH. The Importance of Image Guidance in Common Spine Interventional Procedures for Pain Management: A Comprehensive Narrative Review. *Pain Ther.* 2025;14(3):841-863. doi:10.1007/s40122-025-00731-9
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