

# Gluteal Augmentation Injections as an Emerging Risk in Neuraxial Anesthesia: Early Identification, Evaluation, and Communication as Mitigation Strategies for a Safe Delivery

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## Background

- Gluteal augmentation is becoming a more common cosmetic procedure, increasing by 90% between 1999 and 2021<sup>1</sup>
- Liquid silicone is used in gluteal augmentation and this injectate can migrate cranially from the gluteal region to the lower back
- Epidural and spinal needle insertion poses the risk of tracking silicone into the neuraxial space, causing neurotoxic exposure

## Case Details

- 36-year old G3P1011 with history of gluteal liquid silicone injections presents for anesthesia evaluation prior to her scheduled Cesarean section (CS)
- Patient was previously informed by her providers about the risk of neuraxial anesthetics for future pregnancies at the time of her gluteal injections
- Anesthesia plan was discussed among all involved providers

## References

1. Dai Y, et al.. Current Knowledge and Future Perspectives of Buttock Augmentation: A Bibliometric Analysis from 1999 to 2021. *Aesthetic Plast Surg.* 2023
2. Amaya-Zuniga, W, et al. Migration of Liquid Silicone, an Emerging Contraindication of Neuraxial Anesthesia. *Colombian Journal of Anesthesiology* 2021

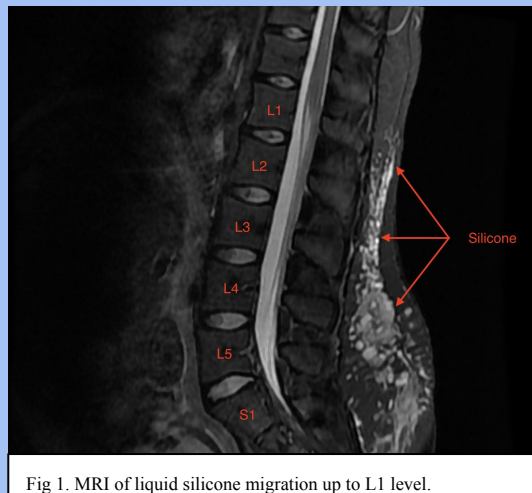


Fig 1. MRI of liquid silicone migration up to L1 level.

## Case Details

- MRI of the lumbar spine was recommended<sup>2</sup> and revealed “pockets of fluid concerning for free silicone...spanning from the sacrum to L1-L2 level” (Fig. 1)
- Neuraxial anesthesia was contraindicated<sup>2</sup> in this patient
- Proceeded with her CS under general anesthesia (GA) without complications

## Discussion

- **Identification:** Patient education around risks of liquid silicone gluteal augmentation and identification were paramount to ensuring this patient received appropriate preoperative evaluation to devise a safe anesthetic plan
- **Evaluation:** MRI is an appropriate imaging modality to evaluate liquid silicone migration and can guide the evaluation risk of neuraxial vs GA
- **Communication:** OB obtained information at prenatal appointments and placed anesthesia consult ahead of due date. Anesthesiologist was able to obtain appropriate imaging before delivery and added condition as an allergy to the chart to communicate with all involved providers