

Response to Letter to the Editor: From Cadaveric Safety Zones to Patient-Specific Planning: The Role of ZTE MRI in Latarjet Surgery

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This response addresses the Letter to the Editor entitled "**From Cadaveric Safety Zones to Patient-Specific Planning: The Role of ZTE MRI in Latarjet Surgery**" by Bahattin Paslı (The Hive Musculoskeletal Journal - Published on June 12, 2026; <https://doi.org/10.70885/hmsj.2026.06.003>).

The original article "**Anatomic study: suprascapular nerve safety zone in open Latarjet surgery**" by André Leonardo Nogueira Farias, Rômulo Brasil Filho, Antonio Carlos Tenor Júnior, Jorge Henrique Assunção, Caio Santos Checchia, Alexandre Lädermann, Eduardo Angeli Malavolta (The Hive Musculoskeletal Journal - Published on May 20, 2026; <https://doi.org/10.70885/hmsj.2026.05.002>)

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Dear Editor,

We thank the authors for their thoughtful comments on our recently published study, "Anatomic study: suprascapular nerve safety zone in open Latarjet surgery." We appreciate their complementary perspective regarding the potential role of zero echo time magnetic resonance imaging (ZTE MRI) in patient-specific preoperative planning.

We agree that cadaveric anatomical studies have inherent limitations, particularly the possibility that dissection may potentially alter the native position and spatial relationship of neural structures. Nevertheless, cadaveric models remain clinically relevant because they allow direct assessment of surgical anatomy and the relationship between fixation devices and adjacent neurovascular structures under controlled conditions.

Previous studies have shown that the suprascapular nerve may be at risk during Latarjet fixation, especially near the spinoglenoid notch and in relation to the superior screw trajectory. This risk is influenced by screw direction, posterior glenoid landmarks, and shoulder positioning, reinforcing the importance of both anatomical knowledge and surgical technique [1][2][3][4].

We also agree that ZTE MRI is a promising modality for individualized preoperative assessment. By capturing signals

from tissues with very short T2 relaxation times, ZTE MRI can provide CT-like visualization of cortical bone and mineralized structures without ionizing radiation, while preserving MRI assessment of adjacent soft-tissue and neural structures [5][6]. The study by Paslı et al. further supports its feasibility for personalized assessment of distances between critical nerves and glenoid landmarks [7].

In this context, ZTE MRI should be regarded as a complementary modality that may refine, but not replace, the anatomical principles established by cadaveric research. Cadaveric studies provide foundational safety principles, whereas ZTE MRI may individualize these principles in complex cases, revision surgery or distorted anatomy.

Our findings reinforce that careful control of drilling direction, particularly avoiding excessive superior or medial screw angulation, remains central to reducing the risk of suprascapular nerve injury. Future studies correlating ZTE MRI-based measurements with intraoperative findings, fixation trajectory, neurological complications, and clinical outcomes would be valuable.

In conclusion, cadaveric anatomical studies and advanced imaging modalities should be considered complementary approaches. Together, these strategies may contribute to safer and more precise open Latarjet surgery.

André L. N. Farias, MD
On behalf of the authors

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Conflicts of interest statements

The author declare no conflicts of interest.

Ethical approval

Not applicable.

Author contributions

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