Pre-operative Hematocrit is Predictive of Intra-operative Bleeding in Pediatric Scoliosis Spinal Fusion

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Background

•Spinal fusion in children with scoliosis is common but often leads to significant blood loss.

•Increased blood loss correlates with higher post-operative complications.

•Study investigates the relationship between pre-operative hematocrit and transfusion risk.

Methods

•Retrospective analysis of National Surgical Quality Improvement Program Pediatric database (2016-2020).

•Focus on pediatric patients undergoing scoliosis treatment.

Results

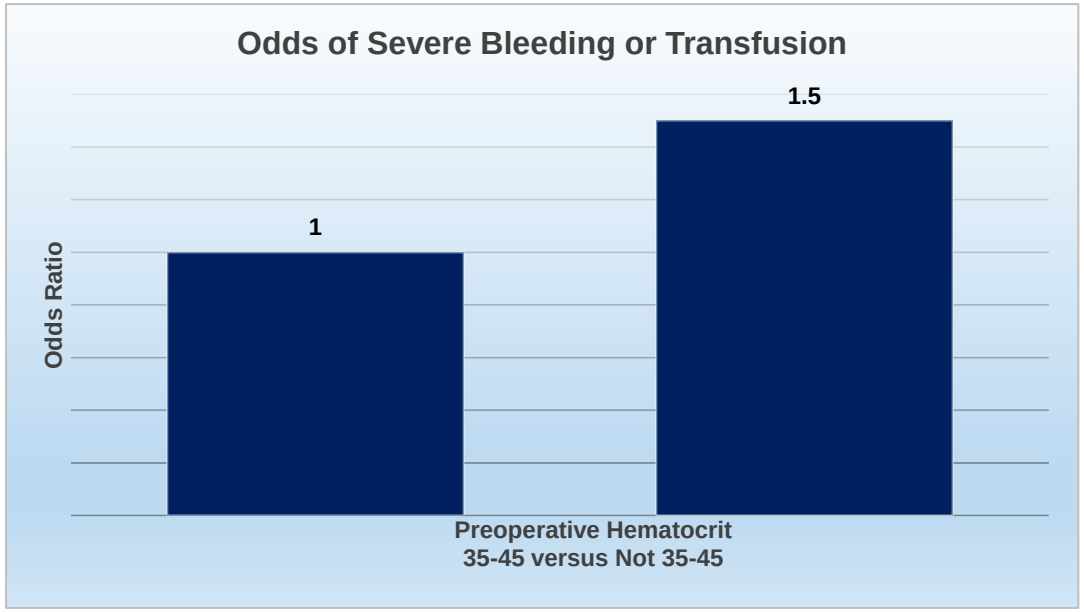
•3182 patients undergoing scoliosis treatment identified.

•Hematocrit between 35-45 associated with:

- •Lowest bleeding.
- •Lowest need for transfusions.

•Hematocrit outside 35-45 linked to:

- •1.5 times more likely to require transfusion or experience significant intra-operative bleeding ($p<0.001$).



Conclusion

•Pediatric patients with hematocrit between 35-45 less likely to need transfusions or experience significant peri-operative bleeding.

•Pre-operative hematocrit optimization can improve positive patient outcomes in scoliosis treatment.

References

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