

BACKGROUND

We report the case of an 18-year-old male with developmental delay and enlarging arteriovenous malformation (AVM) of the right auricle. Family members are Jehovah's Witnesses and refused pre-operative consent for blood products. To our knowledge, this is the first discussion of management of an extracranial AVM in a Jehovah's Witness patient

METHODS

Due to ethical concerns and patient safety, a court order was obtained for legal transfusion of blood products in an emergency situation given the risk of intraoperative hemorrhage. Pre-operative glue embolization was performed by interventional radiology. Post-embolization images demonstrated near 95% decrease in blood supply (Figure 1). The following day surgical excision was performed with preservation of the pinna perichondrium, allowing for reconstruction with full thickness skin graft. Intraoperative blood loss was minimal.

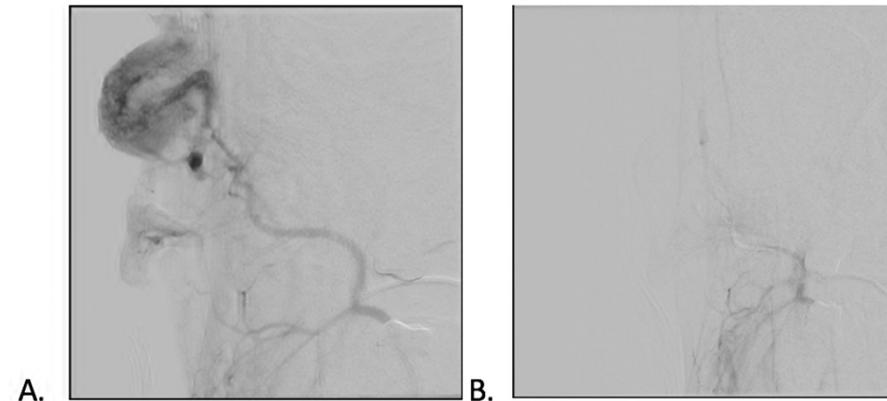


Figure 1. A: Angiogram of right auricular AVM. B. Post-embolization appearance.

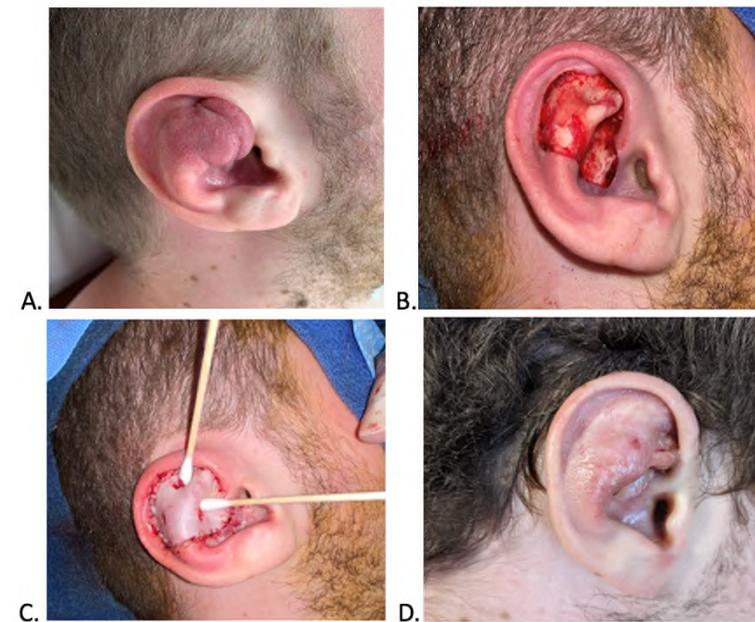


Figure 2. A. Pre-operative appearance of AVM. B. Defect prior to reconstruction. C. Intra-operative repair with full thickness skin graft. D. 2 months post-operatively.

RESULTS

Blood transfusions were able to be avoided, and reconstruction of the auricular defect was acceptable.

CONCLUSION

Auricular AVMs are exceedingly rare. Family refusal for blood transfusions due to Jehovah's Witness religion may cause concerns for patient safety. However, appropriate ethical and legal discussions with legal intervention when needed may allow for safe pursuit of treatment, including surgical excision. A surgical approach with preoperative embolization combined with meticulous intraoperative hemostasis allowed for successful excision with minimal blood loss and favorable cosmetic outcome.

REFERENCES

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