at TVE ranged between 1 and 20-years old with a median of 5.5-years. The number of prior TAE treatments ranged between 2 and 14 with a median of 6 treatments. TVE with coiling was used in the earlier years of this case series (10/14; 71.4%) while PCT was employed in the most recent four treatments (4/14; 28.6%). Overall, most patients achieved a favorable, immediate angiographic outcome with 7/14 (50%) showing complete obliteration, 5/14 (35.7%) showing near-complete obliteration, and 2/14 (14.3%) showing incomplete obliteration. At long-term angiographic outcome, all cases that could obtain a follow-up angiogram showed a favorable outcome of complete obliteration (11/11). The long-term follow-up angiogram median time from TVE was 16 months with a range of 6 months to 57 months. We report mostly favorable clinical outcomes, though a significant subset of our sample (3/14; 21.4%) experienced post-operative bleeding. One of these bleeds we considered ‘major,’ and resulted in mortality (TVE coiling alone). A ‘minor’ post-operative bleed occurred due after TVE coiling, but fortunately the patient made a full recovery. The final bleed we considered to be minor (PCT) and the patient also made a full recovery. Overall, we report 13/14 favorable long-term outcomes and one mortality. Of the 14 members of our cohort, two treated with coils had a small residual; this was treated with post-operative stereotactic radiosurgery (SRS) which led to cure of the malformation. 

Conclusion In general, we find that venous occlusion without prior TAE carries a high degree of risk and may lead to post-procedural hemorrhage. TT TVE itself carries a high degree of risk and is the endovascular treatment most highly associated with poor outcomes. We believe that transfemoral/transjugular TVE approaches are safe and effective. We strongly advocate for the PCT technique for its security in avoiding reflux and its practicality as a final treatment after multiple rounds of TAE.

Disclosures M. Bazil: None. S. Matsoukas: None. T. Shigematsu: None. A. Berenstein: None. J. Fifi: None.

E-197 EVOLUTION OF TRANSVENOUS EMBOLIZATION IN VEIN OF GALEN MALFORMATION: A CASE SERIES

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Introduction Vein of Galen Malformations (VOGM), in infants, presents with congestive heart failure, macrocephaly, failure to thrive, developmental delays, or other serious neurological impairment. Transarterial embolization (TAE) has markedly improved since the inception of endovascular therapy. In our practice, we obtain total obliteration in close to 80% of all cases with TAE. The remaining 20% of our cases typically have small arterial contributors that are uncatheterizable. Transvenous embolization (TVE) then becomes an attractive option. Here, we report our experience with various TVE techniques we have employed over time.

Methods A retrospective review of our clinical database for patients with the diagnosis of VOGM treated between January of 2004 and August of 2021 was performed. Patients who underwent TVE were selected for detailed analysis and further chart/imaging review.

Results Prior to 2004, three patients were treated by one of the authors (AB) with TT technique. The patients' heart failure resolved, but the treatment led to poor clinical outcome and developmental delay. Our overall cohort of TVE in VOGM contains 14 patients with mostly choroidal VOGMs (13/14; 92.9%) and one mural VOGM (1/14; 7.1%). The age at TVE ranged between 1 and 20-years old with a median of 5.5-years. The number of prior TAE treatments ranged between 2 and 14 with a median of 6 treatments. TVE with coiling was used in the earlier years of this case series (10/14; 71.4%) while PCT was employed in the most recent four treatments (4/14; 28.6%). Overall, most patients achieved a favorable, immediate angiographic outcome with 7/14 (50%) showing complete obliteration, 5/14 (35.7%) showing near-complete obliteration, and 2/14 (14.3%) showing incomplete obliteration. At long-term angiographic outcome, all cases that could obtain a follow-up angiogram showed a favorable outcome of complete obliteration (11/11). The long-term follow-up angiogram median time from TVE was 16 months with a range of 6 months to 57 months. We report mostly favorable clinical outcomes, though a significant subset of our sample (3/14; 21.4%) experienced post-operative bleeding. One of these bleeds we considered ‘major,’ and resulted in mortality (TVE coiling alone). A ‘minor’ post-operative bleed occurred due after TVE coiling, but fortunately the patient made a full recovery. The final bleed we considered to be minor (PCT) and the patient also made a full recovery. Overall, we report 13/14 favorable long-term outcomes and one mortality. Of the 14 members of our cohort, two treated with coils had a small residual; this was treated with post-operative stereotactic radiosurgery (SRS) which led to cure of the malformation. 

Conclusion In general, we find that venous occlusion without prior TAE carries a high degree of risk and may lead to post-procedural hemorrhage. TT TVE itself carries a high degree of risk and is the endovascular treatment most highly associated with poor outcomes. We believe that transfemoral/transjugular TVE approaches are safe and effective. We strongly advocate for the PCT technique for its security in avoiding reflux and its practicality as a final treatment after multiple rounds of TAE.

Disclosures M. Bazil: None. S. Matsoukas: None. T. Shigematsu: None. A. Berenstein: None. J. Fifi: None.

E-198 TRANSRADIAL EMBOLIZATION OF A LIFE-THREATENING TOOTH EXTRACTION SOCKET HEMORRHAGE AND PSEUDOEANEURYSM

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Embolization of oral hemorrhages due to tooth extraction, although rare, has been previously described. We present a unique case in which a life-threatening tooth extraction hemorrhage was uncontrollable with local compression or surgical cauterization. The patient underwent emergent transradial coil embolization of the posterior lateral nasal branches of the sphenopalatine artery. However, the patient returned eleven days later with a lower volume bleed at the original site. CTA showed a pseudoeaneurysm at the orthognathic surgery crator retrogradely recanalized through the greater palatine arcade. Surgical options were deemed too invasive, and the decision was made to attempt percutaneous direct puncture.