Limb salvage in an extensive and complicated vascular lesion in an infant
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Abstract

Background: Extensive vascular lesions can endanger the life of a child by their virtue of consumptive coagulopathy or cardiac failure. A conservative surgical approach is difficult and can be life-threatening due to uncontrolled bleeding. We report successful limb salvage in an infant despite an extensive and infected arterio-venous malformation of upper limb, complicated by severe consumptive coagulopathy.

Case Report: A term male, 3.2 kgs, presented with a swelling over left arm detected antenatally. Antenatal scan-soft tissue swelling 10.8x6.8x5.4 cm from left shoulder to elbow with heterogeneous cystic spaces and minimal vascularity; O/E- non compressible, no bruit heard.

As the swelling was increasing in size, prednisolone was started at 1 mg/kg/day and slowly escalated to 3 mg/kg/day. However, he presented at 2 months of age with severe anemia and consumptive coagulopathy refractory to medical treatment. Investigations revealed features of consumptive coagulopathy (hemoglobin: 7.3 g/dL; total leukocyte count: 2160/mm³; platelet count: 76,000/mm³; prothrombin time: 35.2 s; international normalized ratio: 3.2; activated partial thromboplastin time: >120 s control-31 s; fibrin degradation product: >800 ng/mL; D-dimer: 4.2 mg/L; fibrinogen: 0.6 g/L). This was accompanied by a sudden increase in size due to infection within the tumor, which got ulcerated and began to discharge a bloody purulent fluid. He was given red blood cell, cryoprecipitate, and fresh frozen plasma transfusions.

At that point, at four months of age, surgery became imperative as a lifesaving mode of treatment. The embolization was not considered as the lesion was infected, ulcerated, and was bleeding. After detailed discussion with parents, consent was obtained for excision with a probability of disarticulation of the limb.

Operative procedure: Planned for amputation/ disarticulation. Axillary vessels identified and controlledTumor excised into Flexor and extensor muscles preserved as much as possible. Radial nerve through the tumor was divided and re-anastomosed. Disarticulation was hence avoided.Arm and hand movements preserved at 10mth follow-up.

Conclusion: A conservative limb salvage surgery is possible even in case of an extensive vascular anomaly. A good vascular control is a must to prevent life threatening hemorrhage in...
a conservative surgery.

NOTE: This work is partly presented at 2\textsuperscript{nd} International Conference on Pediatrics, Neonatology and Healthcare on April, 16-17, 2020 at Amsterdam, Netherlands.

References