[NM-314] Anesthesia and CLOVES Syndrome; A Single-Institution Experience

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Purpose:
CLOVES syndrome (Congenital Lipomatous Overgrowth, Vascular anomalies, Epidermal nevi, Scoliosis and Spine abnormalities) has only recently been described as a separate entity. Previous case series have described individual complications such as catastrophic intraoperative pulmonary embolus, but there have been no larger-scale evaluations of perioperative issues1. The purpose of this study is to describe our institutional experience assessing and managing perioperative risks of patients with CLOVES syndrome.
Methods:
The database of our Vascular Anomalies Center was searched for patients with the diagnosis of CLOVES syndrome who underwent anesthetics for diagnostic or interventional procedures. Anesthetic and postoperative records were reviewed for intraoperative and postoperative course and complications.
Results:
103 patients with a diagnosis of CLOVES syndrome were identified. Of those patients, 37 had been anesthetized for 157 diagnostic or interventional procedures.
The patients (21 males, 16 females) ranged in age from 1 month to 51 years at first treatment (median 9 years). These patients experienced between 1 and 15 anesthetics. Procedures requiring anesthesia included MRI, interventional radiology procedures such as sclerotherapy and embolization, resections of truncal and limb masses, orthopedic surgery and neurosurgical interventions.
15 complications were identified in 12 patients. There were 3 airway issues (one intraoperative obstruction, 2 postoperative stridor), 3 postoperative episodes of DVT or pulmonary embolus, 1 aspiration pneumonia, a neurologic complication after spine surgery and 6 occurrences of wound breakdown or infection. The risk of any complication per procedure was 9.5%, with most issues occurring in the post-operative period. No mortalities were identified.
Conclusion:
As we continue to determine the best practices for lifelong treatment of this patient population, it is essential that the risks associated with operative treatment be delineated. The CLOVES population is certainly at increased risk for periprocedural complications, particularly those of wound healing and thromboembolism1,2. Thromboembolic catastrophes , while prominent in the initial descriptions of this syndrome, were not as notable in this series, perhaps reflecting our emphasis on aggressive hematologic management of these patients in the perioperative period. With multidisciplinary input to address issues such as coagulopathy, altered body habitus and poor wound healing the possibility of a safe anesthetic and post-procedure course increases for these patients.

1. Alomari, et al., J Thorac Cardiovasc Surg 2010, 140:459
2. Sapp, et al., Am J Med Genetics 2007, 143A:2944
