

## INTRODUCTION

- More common, less severe complications of prone positioning are pressure ulcers while more severe complications, such as rhabdomyolysis and compartment syndrome of the quadriceps have also been reported
- Hereditary spherocytosis (HS) is a hemolytic disorder with altered red cell deformability that can rarely be associated with leg ulcers
- It is unknown if HS is a predisposing risk factor for pressure-related injuries
- We present two adolescent patients with HS who underwent revision posterior spinal instrumentation and fusion (PSIF) who developed bilateral myonecrosis of the quadriceps

## METHODS

- Two adolescent patients underwent PSIF and both developed myonecrosis of the quadriceps
- Retrospectively, both patients found to have HS

## RESULTS

- **Case 1:** 18 year-old-male with HS and subsequent splenectomy
- 9 hour surgery
- Post-operatively developed pressure ulcers along the areas of thigh pads
- Continued thigh pain one month post-op
- MRI obtained showed myonecrosis of the quadriceps- managed conservatively
- Thirteen months post-op, thighs soft, with strongly positive Ely test to 90 degrees
- **Case 2:** 17-year-old female with HS and subsequent splenectomy
- 6 hour 51 minute surgery
- Area of erythema and superficial abrasion seen post-operatively
- Persistent pain two weeks post-op
- MRI showed concern for pyomyositis
- Taken urgently to operating room for irrigation and debridement with no evidence of infection
- Wound cultures negative, tissue biopsy showed fragments of fibroconnective tissue and muscle with necrosis consistent with ischemia
- Full range of motion two-months post-op

## CONCLUSION

- Prone position puts patients at risk for spectrum of myocutaneous complications
- Leg ulcers in HS likely secondary to increased blood viscosity leading to decreased skin perfusion
- We hypothesize these patients developed tissue ischemia at the sites of padding due to compression of microvasculature in conjunction with decreased erythrocyte deformability
- Further studies needed to assess correlation

## Credits/Disclosures/References

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