Stretching the Limits: Anesthetic considerations in pregnant patients with Ehlers-Danlos Syndrome

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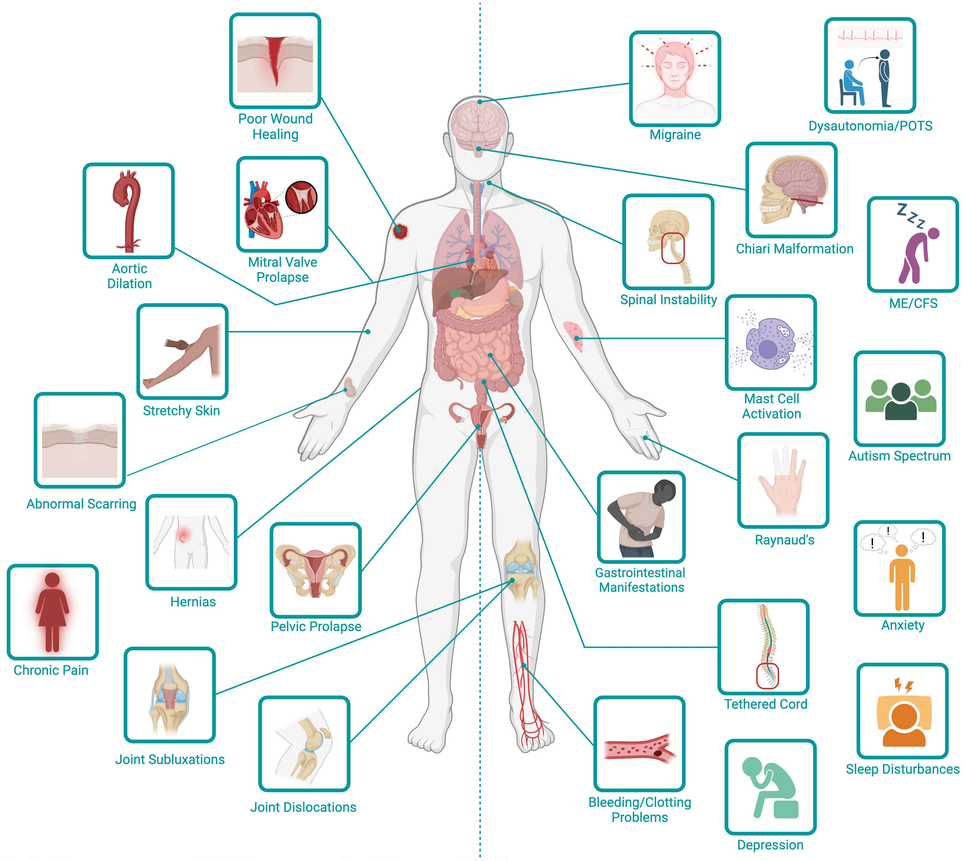
Background



Ehlers-Danlos Syndrome (EDS): connective tissue disorder resulting in abnormal collagen synthesis

Affects multiple organs, impacting anesthetic management in pregnancy

Limited data available on anesthetic considerations in parturients with EDS

Brigham and Women's Hospital
Founding Member, Mass General Brigham

HARVARD MEDICAL SCHOOL

Methods

Study Design

Retrospective case series

Study Population

Parturients delivering at ≥20 weeks' gestation between 1994 and 2024

Data Collection

Large Language Model to process clinical notes followed by manual review

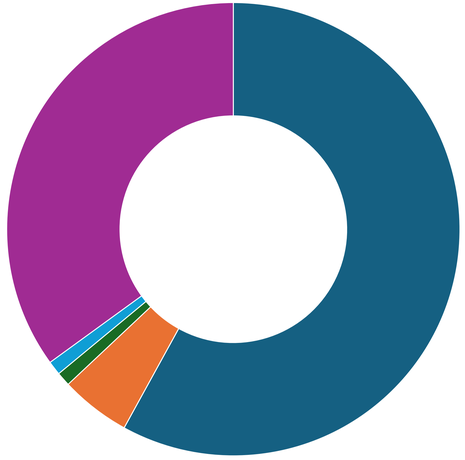
Statistical Methods

Descriptive statistics to report outcomes

Results

Number of patients:110; Number of pregnancies: 148

Types of EDS



Characteristics

Joint hypermobility (72%)
Recurrent dislocation/fracture (54%)
Chronic pain (39%)
POTS (29%)
Cardiovascular anomalies (10%)
Coagulation disorders (5%)
Resistance to local anesthetics (2%)

Delivery Mode

Vaginal Delivery (53%)
Cesarean Delivery (47%)

Anesthetic Technique

Epidural analgesia (44%)
Dural Puncture Epidural (16%)
Combined Spinal Epidural (13%)
Spinal anesthesia (25%)
General anesthesia (1%)

Neuraxial Complications

Multiple attempts (10%)
Paresthesia (3%)
Ultrasound guidance (3%)
Unintentional dural puncture (0.7%)
Post-dural puncture headache (0%)
Resistance to local anesthetic (0%)

Discussion and Conclusion

While not powered to detect rare outcomes, our findings suggest that neuraxial anesthesia is well tolerated in parturients with EDS

Technical challenges such as need for ultrasound guidance, multiple placement attempts, and epidural catheter replacements persist

Tailored and multidisciplinary anesthetic management is crucial for parturients with Ehlers-Danlos Syndrome