



# A Case Report on New-Onset Myopathy In A Pregnant Patient in the Third Trimester

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## Background

This case documents the theory that polymyositis onset during the second-to-third trimester of pregnancy had a good outcome after drug therapy with corticosteroids postpartum.

## Case Description

37-year-old pregnant woman with no past medical history presented at 38 weeks gestation with three-month history of insidious and slowly progressive muscle weakness that started in her proximal arms and progressed to her legs. Physical exam showed diffuse generalized weakness worse in lower versus upper extremities and proximally versus distally, with findings of Gower's sign, waddling gait, and bilateral hip instability.

### Laboratory findings:

Positive dsDNA. Thyroid and parathyroid hormone levels, CPK, aldolase, and LDH were normal. Myasthenia panel (acetylcholine receptor, modulator and binding antibodies) was negative. Myositis panel (including Jo-1, SRP, MI-2 antibodies) was negative. Work-up for necrotizing myopathy (anti-HMGCR anti-SRP antibodies) was negative.

**Imaging:** MRI of the lower extremities showed signal abnormality in bilateral gluteal and thigh muscles consistent with possible inflammatory myopathy. MRI of the cervical spine showed no significant cord compression or root impingement.

**NCS/EMG:** Fibrillation potentials, positive sharp waves, reduced amplitude CMAPs and myopathic motor units in the proximal musculature.

**Muscle biopsy:** Rare necrotic fibers, no inflammatory infiltrates.

## Case Outcome

The patient had a normal vaginal delivery of a 2900 gram infant at 39 weeks gestation. The infant had a normal neonatal examination.

The patient was treated with IV solumedrol postpartum and her weakness subsequently improved. She was able to be safely discharged home to care for her infant.

## EMG Findings

Muscle	Nerve	Root	Ins Act	Fibs	Psw	Amp	Dur	Poly	Activation	Int Pat	Fasc
1stDorInt	Ulnar	C8-T1	Nml	0	0	Nml	Nml	Nml	Nml	Nml	0
Deltoid	Axillary	C5-6	Nml	1+	Trac e	Dec	Brief	Nml	Nml	Nml	0
AntTibialis	Dp Br Peron	L4-5	Nml	2+	2+	4-5K	Nml	Nml	Nml	Nml	0
VastusLat	Femora l	L2-4	Nml	0	0	Dec	Brief	Nml	Nml	Dec	0
Iliopsoas	Femora l	L2-3	Nml	2+	2+	Dec	Brief	Inc	Nml	Dec	0
Triceps	Radial	C6-7-8	Nml	3+	3+	Dec	Brief	Nml	Nml	Nml	0
MedGastroc	Tibial	S1-2	Nml	2+	2+	Dec	Nml	Nml	Nml	Nml	0
ABD Dig Min	Ulnar	C8-T1	Nml	Trac e	1+	Nml	Nml	Nml	Nml	Nml	0

**Table:** EMG findings of right-sided musculature demonstrating low-amplitude and short-duration motor units in the right Deltoid, Vastus Lateralis, Iliopsoas, and Triceps muscles, with considerable accompanying spontaneous activity. EMG findings were consistent with myopathy.

## Discussion

This patient experienced dramatic improvement postpartum following intravenous steroid therapy. There are few case reports documenting the management and fetal and maternal prognosis in patients with myopathy which develops during pregnancy.

Fetal prognosis is poor with severe disease and in cases with onset of symptoms early gestation. When myopathy develops in the second or third trimester the risk of fetal loss is reduced.

Steroids as first-line therapy are generally safe and may be administered for maternal disease during pregnancy with good outcomes. The risk of steroid administration to the fetus seems low, as placental enzymes inactivating prednisolone.

## Conclusion

This case reveals that myopathy during the second-to-third trimester of pregnancy may have a good outcome following corticosteroid therapy.

## References

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