

Multiple Autoimmune Antibody Limbic Encephalitis: A Case in a Pregnant Woman Meha Goyal, Kasey Gildersleeve, MD, Stuart R Tomko, MD, Joseph S. Kass, MD, JD

Introduction

Autoimmune limbic encephalitis

- Subacute onset of irritability, short term memory loss, depression, sleep disturbances, hallucinations, seizures, confusion
- Associated antibodies:
 - Anti-NMDA receptor antibody
 - Anti-GAD antibody
 - Anti-GABA-B receptor antibody
 - Anti-AMPA receptor antibody
- Previously described cases of anti-NMDA encephalitis in pregnant women showed:
 - high titers (>1:80)
 - disease onset later in pregnancy (8, 14, 17 weeks)
 - significant neuropsychiatric symptoms
 - failure to respond to first line therapy
 - associated ovarian teratomas

Patients develop rapidly progressive neuropsychiatric symptoms, followed by autonomic instability often requiring ventilator management.

First line therapy—corticosteroids, IVIG, PLEX Second line therapy—Cyclophosphamide, Rituximab

Clinical course

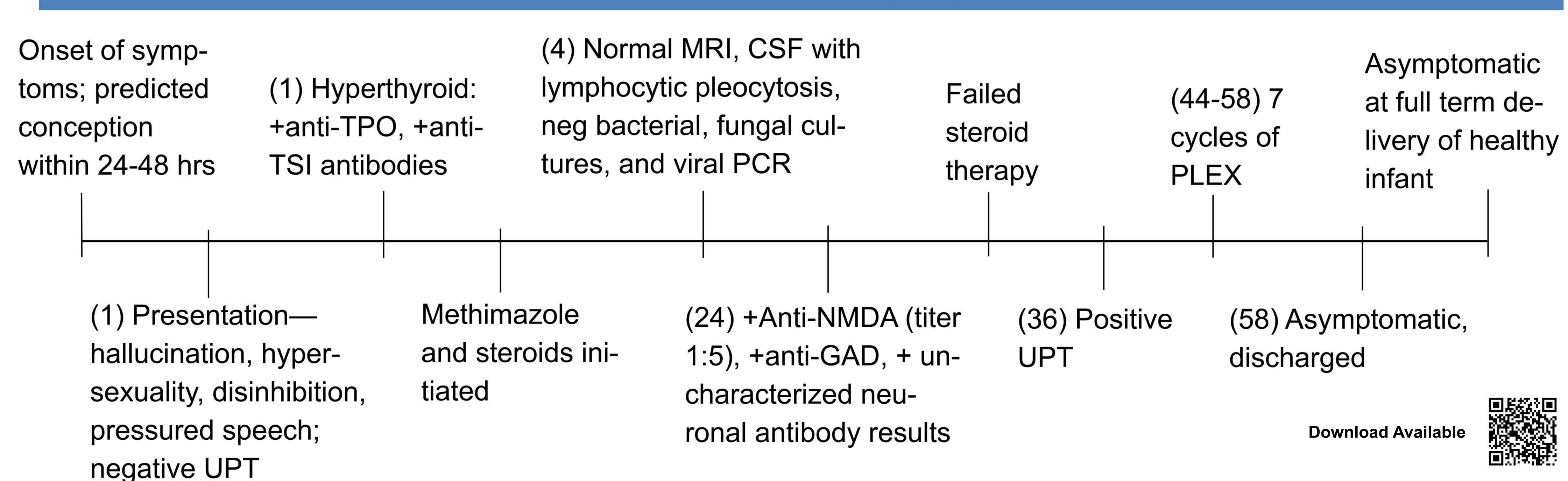
36 year-old woman with no past medical history presented to the hospital with four days of confusion, hallucinations, hypersexuality, disinhibition, and pressured speech

- CT head negative and initial LP showed lymphocytic pleocytosis (WBC 44, lymp 95%, pro 30.9, gluc 65)
- TSH undetectable, anti-TPO and anti-TSI antibodies positive —> Hashimoto's encephalopathy and started on steroids and Methimazole
- Labs normalized, however no clinical improvement MRI non-diagnostic, CT CAP showed thickened endometrium —> + urine pregnancy test
- . CSF showed +NMDA and anti-GAD —> PLEX
- . Discharged home
- Continued improvement in clinical course postdischarge, now asymptomatic and otherwise uncomplicated pregnancy and delivery

Significance of Case

Pregnant patient with ≥ 4 autoimmune antibodies—all associated with psychiatric disturbance

Time Course (days)



Discussion and Conclusion

First described case in literature of pregnant patient with clinical diagnosis of encephalitis associated with multiple autoimmune antibodies

- nonresponsive to steroid treatment
- improvement with PLEX
- otherwise normal pregnancy, delivery, and fetus

Unique features

- lower titers (1:5 vs >1:80 in other cases) of anti-NMDA antibody
- unclear if single antibody contributed to symptomatic development or if there was synergy
- less severe symptoms (no autonomic instability)
- symptoms appeared earlier in pregnancy (24-48 hours after conception)
- no associated malignancy
- good response to PLEX, no response to steroids
- unclear if conception and clinical manifestations are coincidental or are related pathophysiologically

Autoimmune limbic encephalopathy should be considered in patients who fail to respond to traditional therapies for other more common causes of encephalopathy

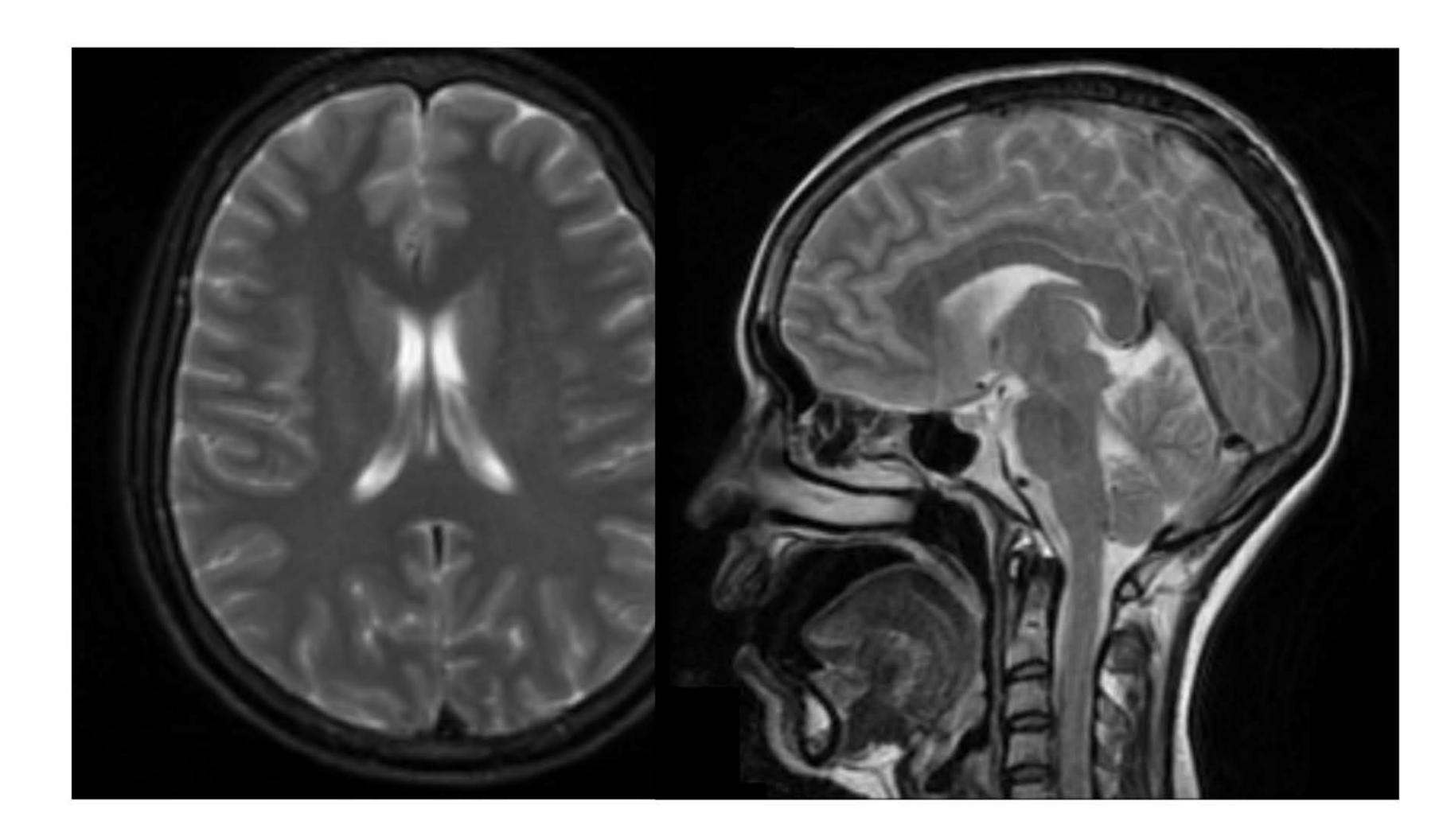


Figure 1. Patient's MRI on day four with no remarkable changes.

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