Diagnoses of Exclusion: A Diagnostic Dilemma in an 83-Year-Old Patient with Acute Psychosis

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Introduction and Background

- The differential for acute, late-onset psychosis is broad and the workup can vary from basic labs to lumbar puncture and autoimmune labs, requiring providers to recognize nuances in presentation that require further investigation.[1]
- Steroid responsive encephalitis associated with autoimmune thyroiditis (SREAT) and very-late-onset schizophrenia-like psychosis (VLOSLP) are both rare diagnoses of exclusion and pose unique diagnostic challenges.
- SREAT is characterized by encephalopathy in the presence of anti-thyroid peroxidase (anti-TPO) antibodies and/or anti-thyroglobulin (TG) antibodies, in the absence of alternative causes.[2]
- VLOSLP represents the onset of schizophrenia-like symptoms over the age of 60.[3]

Case Presentation

- An 83-year-old woman with history of acquired deafness in childhood and psychosis due to hypothyroidism in her late 60's presented with somatic delusions that people had escaped from her stomach and were hiding in her walls.
- She had been living independently and completing all activities of daily living unassisted with no psychotic symptoms noticed by family.
- Auditory hallucinations began several days prior to admission, along with delusions of "escape artists" leaving her body and Capgras delusions involving family.
- She had no memory, cognitive or attention deficits.
- Brain MRI was unrevealing and neurologic exam revealed no deficits.
- VLOSLP was suspected and the patient was started on Risperidone 1mg at night and she was discharged home to family with close follow up.

Case Presentation

- One week after presentation, she was readmitted for worsening psychosis.
- Further laboratory evaluation revealed elevated serum CRP, ESR and anti-TPO antibodies and cerebral spinal fluids (CSF) protein.
- Patient received a burst of steroids for suspected SREAT and was discharged to inpatient psychiatry, where antipsychotics were continued.
- Auditory hallucinations and agitation resolved; some delusional beliefs persisted.

Contrasting Two Diagnoses of Exclusion

	SRE	VLOSLP
Epidemiology	• Around 70% of cases are female[2] • Unclear prevalence	• Also more common in Females • Prevalence of schizophrenia in patients over age 65 is 0.1-0.5%[3]
Clinical Findings	• Clinical presentation ranges from seizures and coma to cognitive impairment and isolated psychiatric symptoms • 47% have confusions • 43% have memory impairment • 25% have persecutory delusions[2]	• Preserved ADLs and minimal cognitive impairment[3] • Positive symptoms predominated by paranoia and multimodal hallucinations[3] • Fewer negative symptoms than in average ago of onset schizophrenia (AOS) [3]
Laboratory Findings and Imaging	• Elevated anti-TPO antibodies • May have elevated ESR and CRP • Elevated aminotransferases occur in about half of patients • 82% have elevated CSF proteins • Generalized slowing on EEG[2]	• No specific lab abnormalities • There may be more pronounced cerebellar atrophy, however this is nonspecific[4]
Treatment Response	• 91% show improvement following steroid treatment at 12 month follow up[2]	• 71% have symptom improvement after initiation of antipsychotics[4] • Response is achieved with lower doses of antipsychotics than in AOS[4-5]

Conclusions

- Despite the rarity of both disorders, there is growing research that may guide practitioners in differentiating between these diagnoses of exclusion.
- New onset psychotic symptoms in the elderly should prompt a thorough medical workup, including anti-TPO antibodies, ESR, CRP and EEG.
- If index of suspicion remains high, a lumbar puncture to evaluate for elevated proteins should be pursued.
- In the case of SREAT, prompt initiation of steroids may lead to resolution of symptoms in almost 90% of cases.[2]

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