

Frontotemporal Dementia, Schizophrenia, Brain Sagging, or All of the Above?



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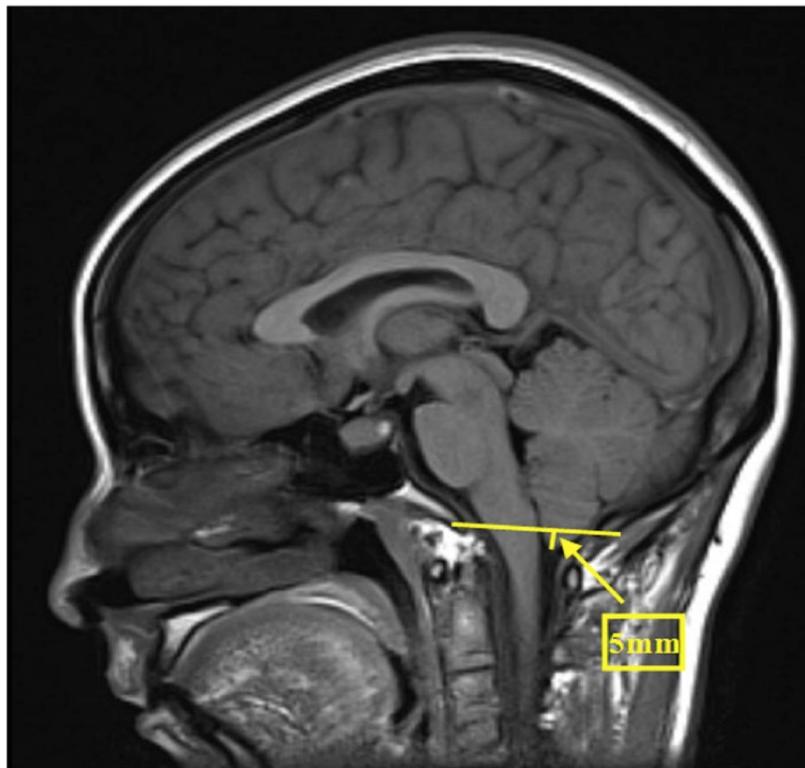
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BACKGROUND

Frontotemporal brain sagging syndrome (FBSS) is characterized by the gradual onset and progression of behavioral and cognitive dysfunction accompanied by headache, caused by cerebrospinal fluid (CSF) leak in the spine. This causes loss of CSF volume to support the brain and spinal cord, resulting in intracranial hypotension.



Typical MRI manifestation of brain sagging. Midsagittal T1-weighted MRI shows downward displacement of the cerebellar tonsil by 5 mm (arrow).

https://www.researchgate.net/figure/Typical-MRI-manifestation-of-brain-sagging-Midsagittal-T1-weighted-MRI-shows-downward_fig3_274727013

CASE PRESENTATION

- Patient is a 57-year-old African-American female with no past psychiatric history who presented after impulsively “destroying [her] house”.
- She had a one-month history of depression and behavioral changes, including paranoia directed towards coworkers and intent to remarry her estranged ex-husband and leave the country with him. Patient’s family reported a similar episode six months prior, which resolved with no intervention.
- The patient was admitted to the behavioral health unit. Initially, she was diagnosed with unspecified schizophrenia spectrum disorder. Olanzapine was started and eventually titrated to 10mg by mouth daily. Her symptoms improved somewhat over the course of a one-week hospitalization.
- The neurology team was consulted after moderate atrophy was noted on brain CT. MRI brain revealed prominent atrophy in the frontotemporal lobes but no corresponding ventriculomegaly ex vacuo. MRI of the cervical, thoracic, and lumbar spine was negative for CSF leak.
- Laboratory workup including CBC, CMP, vitamin B12, folate, TSH, HIV Ag/Ab, RPR, and urinalysis, was unremarkable.
- The leading diagnosis at time of discharge was FBSS vs. frontotemporal dementia (FTD).

CONCLUSION

- FBSS is secondary to CSF leak in the spine causing loss of CSF volume to support the brain and spinal cord.
- Symptoms may include personality changes, which can be mistaken for neurodegenerative conditions, including FTD.
- Clinical suspicion is important to detect FBSS, and the diagnosis involves imaging of all levels of the spinal cord and, in some cases, lumbar puncture.
- Considering all parts of the history and physical exam is important in detecting FBSS, as it can be present even with negative MRIs.

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