Don't Hold Your Breath: A Case of Catatonia With Compulsive Breath-Holding Leading to Pneumomediastinum

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BACKGROUND
• Catatonia is a heterogeneous neuropsychiatric syndrome with distinct motor symptoms. It is typically associated with primary thought or affective disorders. Catatonia with obsessive-compulsive disorder (OCD) is a less explored association.

CASE
• 18-year-old male with a history of OCD and prior episode of catatonia who presented to the ED with stupor, mutism, and withdrawal in the context of medication non-adherence and worsening OCD rituals, including episodes of breath-holding. Bush-Francis Catatonia Rating Scale initially 18, improved to 7 with lorazepam challenge.
• Subsequently endorsed chest pain. CXR and Chest CT revealed pneumomediastinum believed to be secondary to breath-holding.
• After recovery of insight, patient was able to describe obsessive worries that moving and breathing had encroached on other’s space and were deserving of punishment, resulting in purposeful mutism, breath-holding, and stuporous state.
• Condition gradually improved with restarting home psychotropics. Notably, he presented several weeks later with paranoid delusions and hallucinations consistent with psychosis.

Catatonic Syndromes may present diagnostic challenges due to the possibility of multiple underlying etiologies, & the poorly understood overlap in obsessive-compulsive & psychotic phenomena.

Historically, “Obsessions” were largely differentiated from “Delusions” by the presence of intact insight. Recently, Diagnostic guidelines have broadened, and obsessive-compulsive and psychotic phenomena now overlap, or potentially even lie on a continuum.

CONCLUSION
• Only a handful of cases of OCD and catatonia have been described.
• Like most prior reports, our patient was a young adult male with neurovegetative symptoms in the context of worsening OCD rituals.
• This is the first known case to describe OCD with compulsive breath-holding. Breath-holding spells led to pneumomediastinum and occurred alongside other characteristic catatonic features.
• This case raises the question of whether there may have been an element of psychosis underlying the breath-holding catatonic episode. Bidirectional association:
  - 30% of patients with schizophrenia display obsessive-compulsive symptoms.
  - Those with OCD have an increased risk of subsequent schizophrenia diagnosis.

REFERENCES

DISCUSSION
• Limited reports exist of OCD presenting with catatonia.
• We presented the first known case of OCD with compulsive breath-holding, in the context of catatonia.
• This case outlines how catatonic syndromes may present diagnostic challenges due to the possibility of multiple underlying etiologies, and the poorly understood overlap in obsessive-compulsive and psychotic phenomena.

Figure 1: CXR, demonstrating lucency adjacent to the left heart border, consistent with pneumomediastinum.
Figure 2: CT Chest, demonstrating the extent of the pneumomediastinum.

![Table 1](image)

![Image 1](image)
![Image 2a](image)
![Image 2b](image)
![Image 2c](image)