A 68-year-old man with an acute left dorsolateral medullary infarction (figure) had recurrent episodes of hypercarbic respiratory failure with sleep during hospitalization. While awake, the patient ventilated adequately, but when asleep, the patient developed a severe respiratory acidosis (pH 7.14, pCO$_2$ >107) and became unarousable. He was intubated and his mentation improved rapidly. Eventually, he had a tracheostomy placed and continued to have prolonged apneic episodes with sleep during spontaneous breathing trials. The patient did not have central sleep apnea prior to the stroke.

Respiration is classified as voluntary, limbic, automatic, and reflex. Two centers in the medulla control automatic respiration: the dorsal respiratory center and the medullary reticular formation. A unilateral lesion in the dorsolateral medulla can lead to cessation of automatic respiration due to disruption of decussating bulbospinal pathways leading to central alveolar hypoventilation or the Ondine curse syndrome.1

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The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.
### Appendix: Authors

<table>
<thead>
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<th>Name</th>
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</thead>
<tbody>
<tr>
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### Reference

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