064

Intestinal Botulism: the Lurking Threat of Bariatric Surgery

Lindsay Schaack[2], Jessica Weiland[1,2], Alaina Steck[1,2]

[1]Emory University School of Medicine, Atlanta, GA, USA, [2]Georgia Poison Center, Atlanta, GA, USA

Background: Bariatric surgery offers an effective means to combat obesity. However, manipulation of the gastric anatomy may increase one's risk for contracting intestinal botulism.

Hypothesis: Gastric bypass surgery increases the risk of intestinal botulism.

Methods: This is a single patient case report. A 33-year-old female with a past medical history significant for gastric bypass surgery presented to the emergency department complaining of lower extremity weakness resulting in an inability to ambulate. Within hours of her arrival, she developed shortness of breath, blurry vision, slurred speech, and symmetric flaccid paralysis which rapidly progressed to respiratory failure requiring intubation.

Results: An extensive workup failed to reveal the cause of her paralysis. On hospital day 10, she was transferred to a tertiary care facility which, suspecting botulism, administered antitoxin. She began to show improvement on day 16, demonstrating voluntary horizontal eye movement. On day 17, her tests results came back positive for botulinum toxin type F. The patient had gradual recovery of motor function over the next several weeks, and was successfully weaned from the ventilator on day 28. She was transferred to inpatient rehab on day 37 and discharged home on day 53 with no neurologic deficits.

Discussion: The obesity epidemic represents a growing burden on the nation's health and cost of healthcare. Bariatric surgery offers an effective treatment for severe obesity; however, manipulation of the gastric anatomy through bypass procedures alters the microbiota of the intestine, frequently leading to colonization. Typically, cases of intestinal toxaemia botulism require anatomic or physiologic disruption of gastrointestinal flora, such as gastrointestinal surgery or antimicrobial treatment. Case reports of botulism type F implicate pyloroplasty, Crohn's disease, and gastric stapling as potential risk factors. To our knowledge, this is the first case report of intestinal toxaemia botulism occurring in an otherwise healthy adult with a history of gastric bypass.

Conclusion: Gastric bypass surgery may increase one's risk of contracting intestinal botulism via alteration of gut flora, similarly to previously identified risk factors. As these procedures become more commonplace, more cases may emerge due to the ubiquitous nature of the bacteria and inherent difficulty in its avoidance.