



H60 Acute Colonic Pseudo-Obstruction (ACPO) (Ogilvie Syndrome) Leading to Respiratory Compromise and Death

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Learning Overview: The goal of this presentation is to educate attendees about a condition known as ACPO, or Ogilvie Syndrome, and how to differentiate it both clinically and at autopsy from true obstruction.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by demonstrating an unusual case in which ACPO, or Ogilvie Syndrome, resulted in sudden death related to respiratory compromise.

In this case, a 19-year-old severely disabled man with Cerebral Palsy (CP) and autism experienced shortness of breath in association with a markedly distended abdomen and subsequently had an unwitnessed cardiac arrest. Records at his care facility reported the patient had experienced shortness of breath and diarrhea earlier in the evening prior to the arrest. He was transported to an Emergency Department (ED), but resuscitative efforts failed to revive him. A significantly distended abdomen that was notably hard on palpation was noted.

At autopsy, external examination revealed developmental deformities consistent with CP, a markedly distended abdomen, and rectal prolapse. A postmortem radiograph revealed massively distended bowels; this finding was confirmed on internal examination where the small and large intestines were distended to such an extent that the diaphragm was displaced significantly upward bilaterally, with associated compression of the lungs. Further analysis of the gastrointestinal tract failed to identify any signs of perforation or obstruction.

Sectioning of the compressed lungs revealed dark red-blue, moderately congested, compressed parenchyma. Microscopically, the lungs showed considerable compression with areas of collapsed parenchyma and areas of pulmonary edema. There were also focal areas of hyperexpanded alveoli and extravasated blood. Microscopic examination of the Gastrointestinal (GI) tract was unremarkable. Subsequent record review revealed that the patient had experienced similar episodes in the past (relieved via decompression in the ED), but as he was a relatively new resident at the care facility, staff were apparently unaware of this history. In addition, the patient had been receiving multiple medications with constipation as a known side effect, and his laxative medications had been withheld for several days, which potentially aggravated the problem. The cause of death was determined to be respiratory compromise secondary to diaphragmatic compression as a result of ACPO, with contributing underlying factors of CP and autism, including possible medication mismanagement.

The present case highlights the fact that severe intestinal obstruction can lead to significant diaphragmatic elevation with accompanying respiratory compromise and death. When evaluating a decedent for a potential intestinal obstruction at autopsy, it is important to consider a number of potential etiologies, including physical/structural obstruction from tumor, compression, adhesions, volvulus, or intussusception. When careful evaluation fails to reveal a physical/structural obstruction, consideration must be given to other conditions, including toxic megacolon, postoperative ileus, drug-induced obstruction, and ACPO.

ACPO, Intestinal Obstruction, Death