Unusual Cause for Respiratory Obstruction

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A 27-year-old American Indian woman, gravida xii para vii, underwent an elective repeat Cesarean section and tubal ligation with tetracaine spinal anesthesia supplemented, after delivery of the baby, by thiopental-nitrous oxide-oxygen. Recovery was uneventful and the patient was about to be taken to her room when the recovery room staff noticed her convulsing and showing signs of respiratory obstruction. As the recovery staff were attempting to administer oxygen the patient made an expulsive effort and a large live worm together with some gastric contents came out of the mouth. Thereafter the patient's condition reverted to normal, her vital signs became stable and she was returned to the floor within the hour. The worm was identified as a giant roundworm or Ascaris lumbricoides measuring 14 cm. in length and proved to be a female loaded with ova. The patient's stools were positive for ova and after a course of Antepar and an uneventful postpartum course the patient left the hospital with confirmed negative stools.

Ascaris occurs in the United States mainly in the mountainous areas of Southeastern States and South Louisiana. Infection occurs by swallowing material contaminated by ova. The eggs hatch in the duodenum or jejunum, enter the intestinal wall and make their way to the lungs via the lymphatics and the blood stream. The larvae break out of the pulmonary capillaries into the air sacs, migrate up the respiratory tree, crawl over the epiglottis, are swallowed and in sixty to seventy days become adult worms in the lumen of the small intestine. Some of the adult worms develop wanderlust and apparently are attracted to ducts or passages. They creep forward into the stomach from whence they may be vomited or they may attempt to enter the trachea where they have been known to cause death by respiratory obstruction. In this patient the worm appears to have been expelled from the region of the glottis. The pyloric relaxation following spinal anesthesia, mentioned by Greene, may possibly have been a contributory factor in helping this roundworm enter the stomach; and nausea and emesis, although not noticed in this patient prior to the obstructive episode, may have assisted in the rapid progress to the level of the glottis.

Apart from respiratory obstruction ascariasis is of interest to the anesthesiologist as a cause of pulmonary hemorrhage, bronchial asthma from host sensitization, and acute intestinal obstruction in children.

References