

# Cerebral Abscess Complicating Esophageal Stricture Dilation in a Patient with Down's Syndrome

## Proceeding

Brain abscess following esophageal stricture dilatation is a rare but potentially fatal complication mostly described in children with caustic ingestion [1,2]. No procedure related complication (cerebral abscess) has been reported in trisomy 21 patients even though they have higher frequency of congenital and acquired esophageal stenosis and may require repeated therapeutic endoscopic dilatations. We report a case of cerebral abscess complicating dilatation of esophageal stricture in a patient with Down's syndrome with a brief review of the literature.

A 24-year old male with Down's syndrome presented with persistent fevers, lethargy and decreased arousal three days after endoscopic stricture dilatation. Past medical history included congenital cataracts and esophageal stenosis requiring episodic dilatations. Physical examination was non-focal and meningeal signs could not be elicited. Blood cultures were negative. Cranial computed tomography and magnetic resonance imaging showed multi-lobulated ring-enhancing lesions with surrounding vasogenic edema and mass effect, suggesting multiple brain abscesses. Patient underwent right frontal craniotomy and stereotactic-guided evacuation of the abscess. Gram stain of aspirated fluid was positive for alpha Streptococcus anginosus. He was treated with intravenous vancomycin (6 weeks) and metronidazole (3 weeks).

Esophageal stricture can lead to bacterial overgrowth due to obstruction. Dilation of an esophageal stricture is generally the GI procedure associated with the highest rate of Bacteremia [3]. Dilatation disrupts the mucosal integrity, allowing bacteria, mostly oral commensals, to enter into the bloodstream, which can then seed into the brain causing brain abscess. Another hypothesis is the spread of bacteria from the thoracic veins to the brain via the Batson venous plexus [2]. Physician's alertness to persistent fever and neurological signs in the setting of esophageal stricture

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dilation is crucial was early recognition and prompt treatment can have a favorable outcome. Also, routine antibiotic prophylaxis prior to the procedure should be considered in high risk patients [4].

## References

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