History
Newborn with respiratory distress.

Diagnosis
Congenital Pyriform Aperture Stenosis.

Additional Clinical
Unable to pass nasal catheter; no distress with oral airway.

Discussion
Congenital nasal piriform aperture stenosis is an unusual cause of upper respiratory obstruction in infants. It may be manifest at birth, during feeding or with upper respiratory infections that further compromise the nasal airway; occasionally there may be obstruction to passage of a nasal catheter. Piriform aperture stenosis may be associated with abnormal triangle shaped palate or abnormal dentition. Pathogenesis may be related to deficiency of the primary palate or overgrowth of the nasal process of the maxillae. Piriform aperture stenosis may be isolated or associated with holoprosencephaly or endocrine dysfunction.

The prognosis for piriform aperture stenosis is excellent. Most patients are treated conservatively with special feeding techniques. The obstruction is relieved as the nasal cavity grows.

Findings
CT-The pyriform aperture measures 4 mm (between the medial walls of the right and left maxillae) which is considerably less than the normal of 12 mm in a newborn. The choanae are widely patent.

Reference
Belden CJ, Mancuso AA, Schmalfuss IM. CT features of congenital nasal piriform aperture stenosis: Initial experience. Radiology (1999);
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