Case Scenario
9th Annual Connecticut Pediatric Otolaryngology Symposium

Nasal Trauma That Just Can’t Wait!!

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“Wrestling with Brother”

- 7y/o boy presents s/p injury to his nose 10 days ago
- Occurred while wrestling with brother- ran into wall with direct impact to midface. No LOC
- Immediate dorsal nose swelling and nasal bleeding
Series of events

- **Day of injury**: parent called PCP- ice, pain relievers
- **Day 3**: PCP visit- slow trickle of bleeding, significant nasal obstruction, difficult nasal breathing.
  
  RX: Cefdinir for “sinus infection”
- **Day 5 & 7**: Mother called PCP office secondary to ongoing nasal bleeding, increasing swelling, pain, difficulty breathing through nose.
- **Day 7** – Not seen, PCP referred to ENT
ENT Referral

- Nature of injury reviewed - **Now 10d ago**

- Mother states concerned about breathing, ongoing bleeding from nares, pain

- PSH/PMH reviewed - T&A, BMT 4y ago
  No prior hx nasal trauma/deformity
  No Chronic Health conditions
Physical Exam
Physical Exam

- Ear exam: Bilateral EAC, TM Clear
- Nasal Exam: Significant Dorsal Swelling of the nose
  Bilateral Septal Hematoma’s
  No appreciable nasal airflow
- Facial exam: No other noted facial fractures
  Cranial nerves intact
- Oral exam: Clear oropharynx, Normal palate, dentition intact
Initial Operative Findings

- Hematoma and Abscess of nasal septum - Drained
- Septum severely eroded
- Silastic Stent placed to stabilize fractured nasal cartilage/septum & to support nasal projection
Pathophysiology

- Submucousal vessels are torn as bucking forces tear perichondrium from cartilage
- Bacterial proliferation & abcess formation result from presence of stagnant flow of blood.
- Infection/abcess formation within 3d of trauma
- Adults- major trauma,
  Kids- Minor trauma
Septal Hematomas

- May result from more minor trauma and without associated external nasal deformity.

- **Retrospective Study- 20 Children 2mo-15y**

  Most common symptoms noted in children were nasal obstruction (95%), pain (50%), rhinorrhea (25%), and fever(25%).
  Nasal fracture in 3 patients

  Symptoms usually appear within the first 24-72 hours
Referral- Craniofacial/Plastics

- OR 10 days after I & D, 20d post injury
- Findings: Anterior aspect Caudal septum missing back to perpendicular plate, area debrided
- Resorbable plate fabricated to reconstruct caudal septum, secured with sutures
Follow-up Craniofacial

6 weeks post injury

- Septum midline
- Dorsal tip of nose - 1mm loss of support
Follow –up/Long term issues

- Will need series of revisions while he grows
- Will need revision of tip of nose temporarily
- Definite rhinoplasty when Teen or older

- Cosmetic outcome should ultimately be good
- Airway issues were resolved initially

- Example of Saddle nose deformity
Take home messages....

- Urgent ENT referral is essential!!
- Ongoing bleeding, oozing is abnormal
- **Increasing** Nasal Obstruction and swelling is unusual for standard nasal fractures
- Delay in diagnosis can lead to risk of severe infection, irreversible damage or destruction of nasal cartilage and permanent nasal deformities