

NASAL FRACTURES



“Portrait of a Lady”, oil on panel, Rogier van der Weyden, c. 1455, National Gallery of Art Washington.

“...with a quivering movement she removed her gaze and rejoined her father”.

As Lorenzo passed his table with an imperceptible nod, suddenly Michelangelo's eyes met those of the girl. He stopped in his work. She stopped in her walk. He could not take his gaze from this slender, piquant-faced girl. She was startled by the ferocity of expression in his face from the pouring of his energies into the drawing before him. Colour pulsed upwards in her ivory cheeks.

Michelangelo felt this awaking between them in quicker breath. For a moment he thought she was going to speak to him, for she moistened her pale lips. Then with a quivering movement she removed her gaze and rejoined her father. Lorenzo put his arm around the girl's tiny waist. They strolled past the fountain, made their way to the gate and out into the piazza.

Michelangelo turned to Torrigiani.

"Who was that?"

"The Magnificent One, you idiot."

"No, no the girl."

"... girl? Oh Contessina. His daughter. Last one left in the palace.

"Contessina? Little countess?"

Yes. Lorenzo used to call his other daughters "Contessina" as a nickname. When this puny one was born he had her baptised Contessina. Why do you ask?"

"No reason..."

....He would not be able to know the full consequences of Torrigiani's blow until the swelling went down. It would be weeks, perhaps months, before he could see how completely his erstwhile friend had accomplished, in reverse, the redrafting job on his face for which he had longed. That one powerful blow from Torrigiani's big fist had thrown his face out of focus as surely as though Torrigiani had been shaping soft wax.

Shivering with fever, he crawled on hands and knees back into his bed, pulled the covers over his head as though to wipe out the world and reality. And he was sick at heart. His pride had brought him to this low, beaten state. He heard the door open. Unwilling to see anyone, he remained motionless. A hand pulled back the cover over his head. He found himself gazing at Contessina.

"Michelangelo mio."

"Contessina."

"I'm sorry it happened."

"Not so sorry as I."

“Torrighiani got away. But my father swears he will catch him.”

Michelangelo moved his head painfully on his pillow.

“It would do no good. I blame myself. I taunted him... beyond his powers of endurance.”

“He began it. We’ve heard the story.”

He felt hot tears stinging his eyes as he forced himself to say the cruelest words that could escape his lips:

“I’m... ugly.”

Her face had been close to his as they spoke, almost in whispers to insure their privacy from her nurse, who lolled uncertainly at the open door. Without moving she placed her lips on the swollen distorted bridge of his nose; and he felt their faint warm moisture like an annealing balm. Then she was gone from the room.

Irving Stone, “The Agony and the Ecstasy”, 1961

Lorenzo de Medici, “il Magnifico”, the Magnificent, was the greatest Renaissance Prince in all of Europe. Statesman, diplomat, soldier, poet, patron of the arts, defyer of Kings and Popes, he was the quintessential Renaissance man. His court was unrivalled in the world for the richness and vastness of his collection of art and classical antiquities. He gathered the greatest artistic talent in Europe into his famous Gardens where he commissioned them to produce the very finest works. Most of his clientele were of the very top strata of Florentine and European social class and nobility with one notable exception - a certain young man with a fiery temperament by the name of Michelangelo Buonarroti. He had been plucked from the streets to come and work in the gardens when his precocious raw talent had come to the notice of Il Magnifico. Rough, unrefined, a street fighter with a quick temper, yet he possessed a supernatural, almost angelic natural talent. One afternoon while working in the gardens, Il Magnifico strolled past with his constellation of magnificent courtiers admiring his priceless works of art, barely acknowledging his new young sculptor. The rough young man was noticed by someone in the entourage however - Il Magnifico’s youngest daughter, the precocious fourteen year old Contessina! The two fleetingly, but electrifyingly, make eye contact - but the immense social gulf that separated them meant that this was all the intimacy either could ever hope for. Until that is, the night following a ferocious fight with one his friends, when Michelangelo had come off very much second best. Nursing his broken nose in a miserable state in his darkened room, to his immense horror - and shame - Contessina quietly enters his room!

Without 21st century anaesthesia and medical knowledge little could be done for Michelangelo’s nose in the Fifteenth century. He would forever remain sadly deformed. But beauty has different forms. He had a God-given talent few others in history have been granted. And this would earn Michelangelo at least one brief yet exhilarating moment of comfort - and one he would have gladly taken over the wrath of Il Magnifico - or for that matter over any 21st century corrective surgery - a tender “annealing balm” from the lips of a Florentine Princess!

NASAL FRACTURES

Introduction

Fractured noses are a common presentation to the Emergency Department

They are usually treated by reduction under general anaesthesia.

The decision to reduce the fracture will usually be made on clinical grounds, as opposed to radiological investigation.

For this reason nasal bone radiographs are not routinely required when this diagnosis is suspected.

Pathology

Complications may include:

Immediate:

1. Bleeding:
 - The major *immediate* complication.
2. Septal hematoma:
 - This carries a significant risk of septal cartilage damage by hematoma pressure necrosis or by abscess formation and direct destruction.
 - Septal cartilage damage may lead to disfiguring saddle deformity of the nose.



Septal hematoma

3. Nasal passage obstruction.

Longer term:

4. Infection:
 - Especially with associated lacerations.
5. Deformity:
 - The major longer-term complication
 - Nasal deformity can represent a significant cosmetic insult.
6. Functional impairment:
 - More severe injuries may result in obstruction to nasal breathing.

Clinical Features

Important points of history:

Nasal fractures that present to the Emergency Department are commonly the result of assault and so detailed and accurate documentation of the history and examination findings will be important for medico-legal reasons.

Further the nature of assault may be related to domestic violence, and this possibility must always be kept in mind.

Important points of examination:

These include:

- Local pain/tenderness.
 - Swelling, especially at the bridge of nose.
 - Crepitation of nasal bones.
 - Deformity.
 - Epistaxis
 - Septal hematoma.
 - Inability to breathe through the affected nasal passage.
- ♥ A good side can be blocked, then the patient asked whether or not they are able to breathe through the damaged nares.

Investigations

Plain radiography can confirm the diagnosis, but generally is **not** necessary, as reduction is usually done on clinical and not radiological grounds.

When more complex injury is suspected, facial CT scans are the preferred imaging modality.

Management

1. Analgesia:

- Give simple oral analgesia or IV titrated analgesia as clinically required.

2. Attention to bleeding:

- May be controlled with coearylcaine forte nasal spray.
- Follow with packing with xeroform gauze or similar.
- If bleeding is more severe, nasal tampon, or an inflatable balloon device may be required.

Note that if bleeding is still not controlled this could be because the tampon or balloon catheter devices may in fact be separating the bony fragments and promoting further bleeding. This may be overcome by concomitant pressure applied to the external nares.

3. Antibiotics:

- These should then be given following any packing or compound injury.

4. Look for and exclude septal hematoma:

- This looks like a large dark grape, (as above).
- If present (or suspected) refer urgently to an ENT surgeon for drainage.

5. Operative reduction is indicated for:

- Cosmetic deformity.
- Obstruction to breathing.
- Open fractures.

6. Cases of domestic assault should be referred to the social worker.

Disposition:

- Operative reduction is best done under general anaesthetic by the ENT or Plastics surgeon.
- This should ideally be done the same day if deformity is *severe and/ or the injury is compound*.
- In lesser degrees of injury, reduction need not be urgent.
- If there is swelling then the fracture may be reduced within 3-5 days.

This will also allow some time for initial swelling to settle and allow for better assessment of the injury.

- Reduction should not be delayed beyond 10 days.

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