



Adding external to internal imaging

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Purpose

- ▶ Every day 360 million photos are uploaded to Facebook and 60 million photos to Instagram.
- ▶ Uploading patient photos linked to imaging exams is technically easy and has tremendous potential impact on patient care, yet is rarely done.
- ▶ Radiologists may see anatomic details but wouldn't recognize the patient if they walked into the reading room.

Purpose

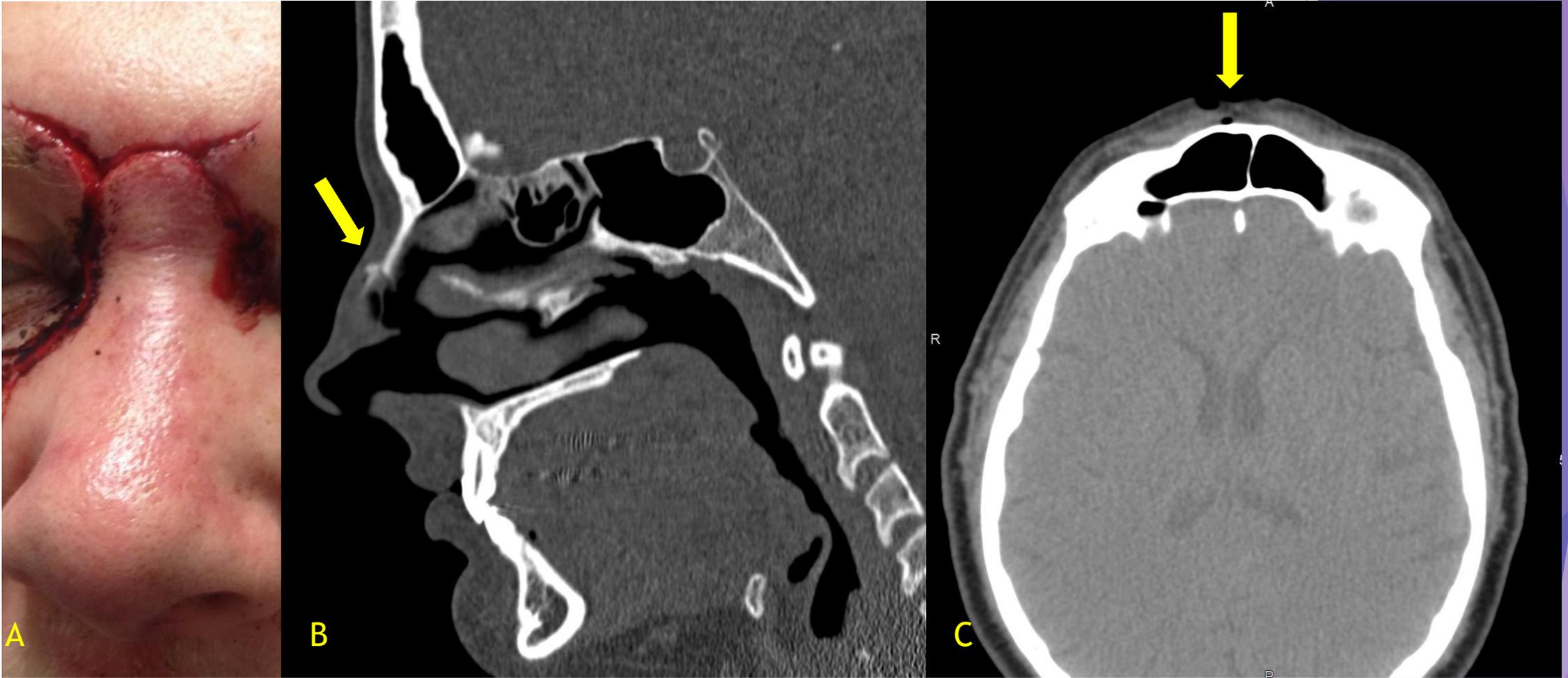
- ▶ Seeing a photo of the patient and/or the external manifestation of their disease may have significant positive impact. It can:
 - ▶ Decrease the potential for patient misidentification by adding another unique personal identifier.
 - ▶ Be extremely helpful to guide the radiologist attention to the diseased area or injured body part which otherwise may be overlooked. Examples include nose laceration in a patient with fractured nasal bone, mild facial swelling in a patient with subtle parotitis.
 - ▶ Personalize the imaging study and connect the radiologist to the patient on a more emotional level, bringing the 2 dimensional images to life.

Materials/Methods

- ▶ A small pilot project was conducted to assess the impact of photos added to the imaging study.
- ▶ Following initial interpretation of a study, the patient was seen by the resident and consented to obtain photos coned to the area of concern.
- ▶ The report was then revised after seeing the photo and assessment made for any real or perceived improvement in the accuracy or additional significant findings

Results

- ▶ On almost all the patients with external findings there were imaging findings that were felt to be easy to miss or overlook without the guidance obtained by photos.
- ▶ Seeing a photo as part of the imaging study added to the confidence of the reader.
- ▶ Subjectively, seeing patient's photo added a human connection to the scans.
- ▶ A larger scale study is in progress at our institution.



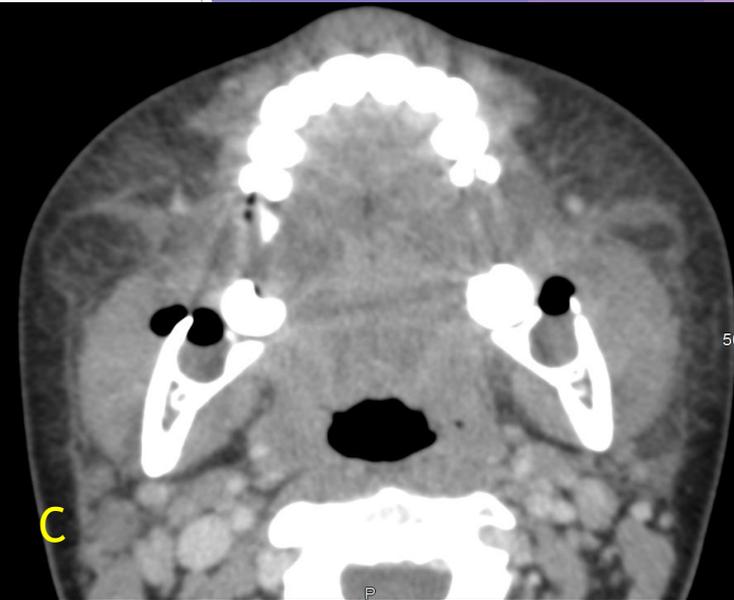
A: Patient photo indicating the injured body part.
B: Sagittal CT image showing nasal bone fracture.
C: Axial CT image showing the soft tissue laceration.



A



B



C



D



E

A: Photo of 14 years old female patient with mild bilateral facial swelling. The CT indication is R/O abscess.

B and C: Axial CT images showing soft tissue densities and air at bilateral mandibular molar sockets.

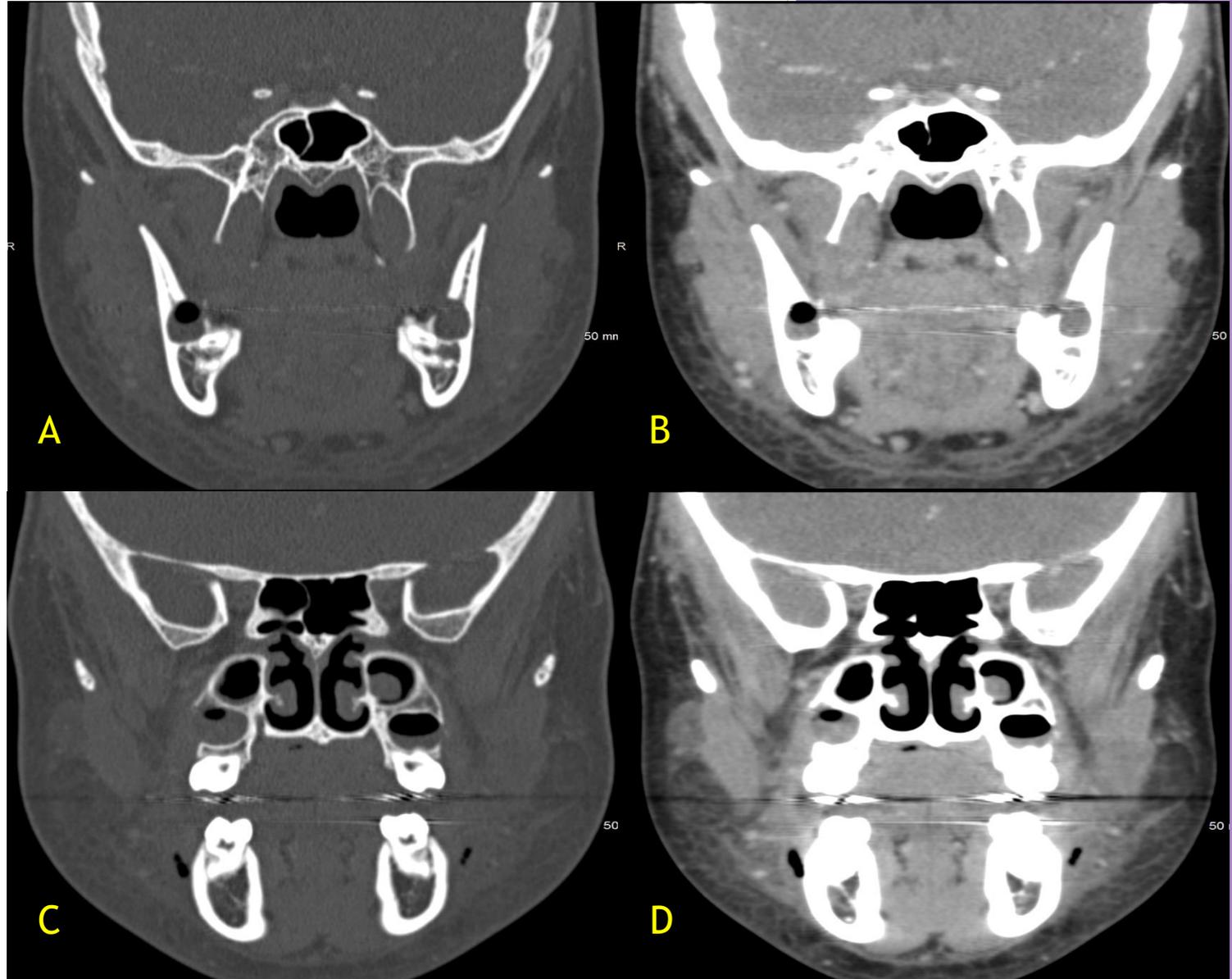
D and E: Axial CT images showing soft tissue densities and air at bilateral maxillary molar sockets.

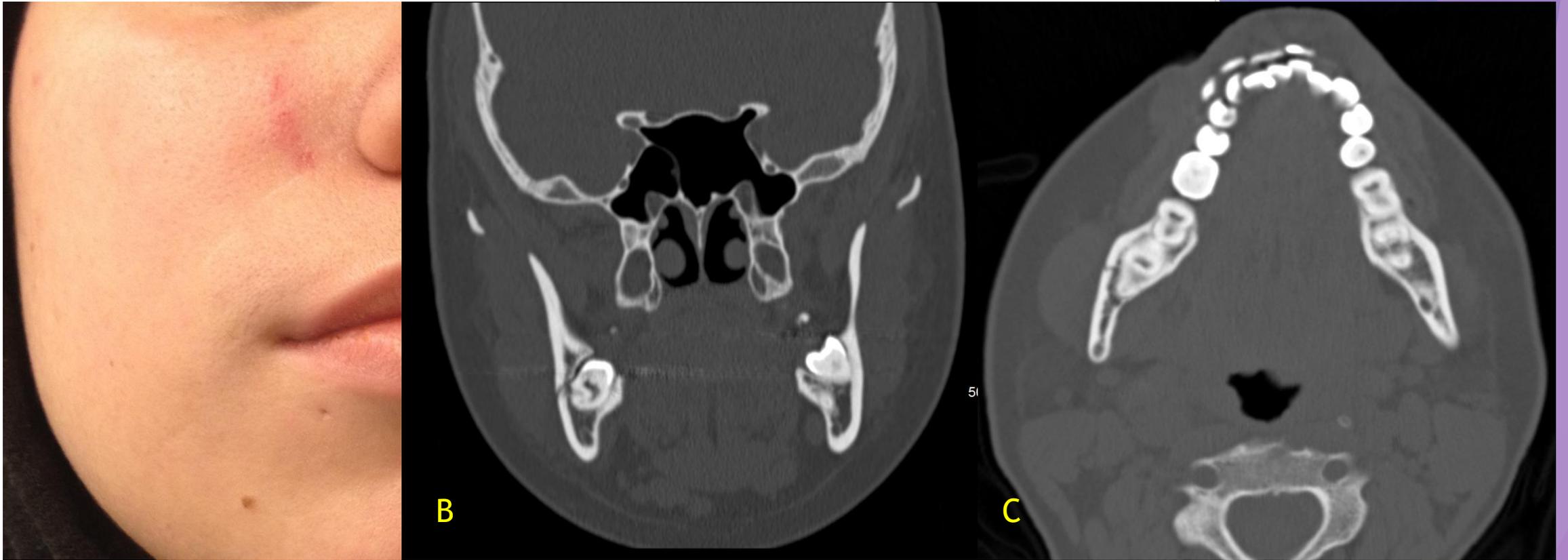
A and B: Coronal CT images showing soft tissue densities and air at bilateral mandibular molar sockets.

C and D: Coronal CT images showing soft tissue densities and air at bilateral maxillary molar sockets.

Mild bilateral facial soft tissue swelling and stranding noted.

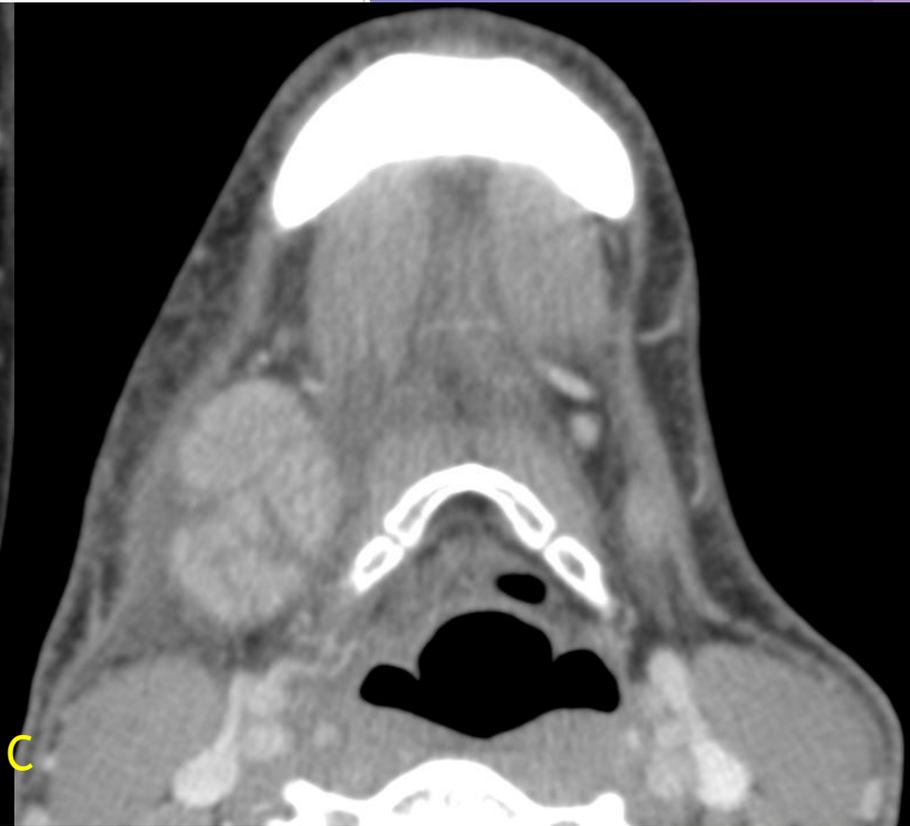
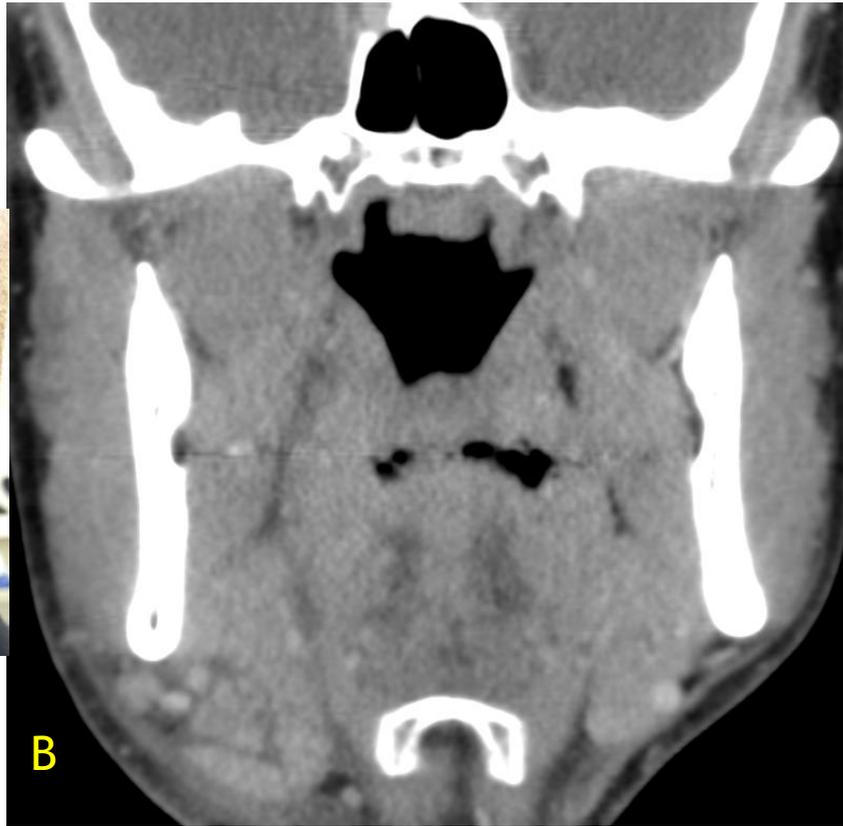
The patient is status post bilateral mandibular and maxillary 3rd molars excision. No abscess identified.





A: Patient's photo showing mild abrasions and soft tissue swelling of the right cheek.

B and C: Coronal and axial CT images showing minimally displaced right mandibular body fracture.



A: Patient's photo showing right submandibular swelling.

B and C: Coronal and Axial CT images showing mildly enlarged and heterogenous right submandibular salivary gland with mild surrounding soft tissue stranding. No sialolith is seen. Findings are compatible with right submandibular sialadenitis.

Conclusions

- ▶ Adding photos of the patient or the area of clinical concern to the radiological study is easy and can have a significant positive impact on the interpretation and adds a personal and human connection to the studies.
- ▶ Further, photos could be used as a very unique personal identifier.
- ▶ Photos are now routine in social media and communication and should be utilized as part of routine radiological studies.