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Patient:
DOB: 02/18/2009

Report Date: 07/20/2017
Study Date: 07/12/2017

Ref. Doctor:

Scan Source:

Study Purpose: Airway Evaluation
Dr. Notes: Patient presents with Class I Maxillary constriction with bilateral crossbites...mouthbreather and after examining quick airway analysis of 50 mm^2. It appears to have total blockage in the oro-pharynx region. Please give me detailed airway analysis.

IMAGES PROVIDED: CBCT scan, Closed

OBSERVATIONS

TMJ:
Right: *Closed:* Condyle: Sclerosis of the superior lateral aspect.
Joint space: The condyle is positioned anteriorly and inferiorly in the fossa. There is narrowing of the lateral superior aspect.
Fossa: The contours are smooth and rounded.

Left: *Closed*: Condyle: The contours are smooth and rounded.
Joint space: The condyle is positioned anteriorly and inferiorly in the fossa.
Fossa: The contours are smooth and rounded.

MAXILLA and MANDIBLE:
- The transverse dimension of the arches is narrow.
- Bilateral posterior cross bite is noted.
- The mandible is small and recessive.

SINUSES and AIRWAY:
- Mild mucosal thickening of the right and left maxillary sinuses, suggestive of inflammatory changes. The right ostiomeatal complex is narrowed by mucosal thickening.
- Bilateral concha bullosa of the middle turbinates.
- Bilateral palatine tonsil enlargement, suggestive of inflammatory changes. This is narrowing the oropharyngeal airway to its narrowest point (about 52mm^2). This may signify high risk for sleep disordered breathing. Clinical correlation is recommended.

OTHERS:
- All other structures within the field of view appear to be within normal limits.

IMPRESSIONS

The findings in the right TMJ are suggestive of functional remodeling. The sclerosis indicates that the biomechanical threshold of the condyle in lateral superior aspect has been met and possibly exceeded. The position of the condyles in the maximum intercuspal position indicates the possible presence of a dual bite, but this should be verified clinically. The position of the right condyle in closed and the narrowing of the lateral superior aspect with thinning of the joint space at that point may indicate disc displacement or perforation, but this cannot be verified using CBCT imaging. The contributing factors to sleep-disordered breathing or upper airway resistance syndrome are listed in the section on “SINUSES and AIRWAY” and also includes the morphology of the patient’s maxilla and mandible.

RECOMMENDATIONS
MRI if visualization of the disc and soft tissues is required.

Sincerely,
Dania Tamimi, BDS, DMSc
Diplomate, American Board of Oral and Maxillofacial Radiology

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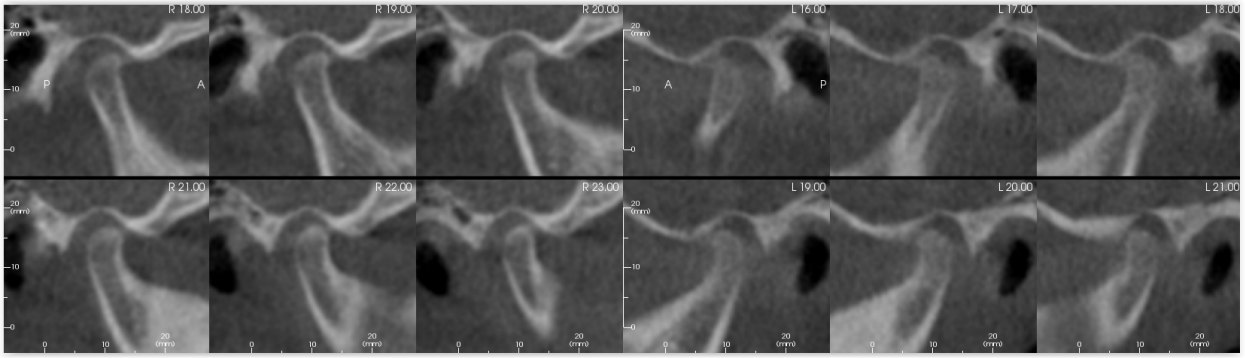
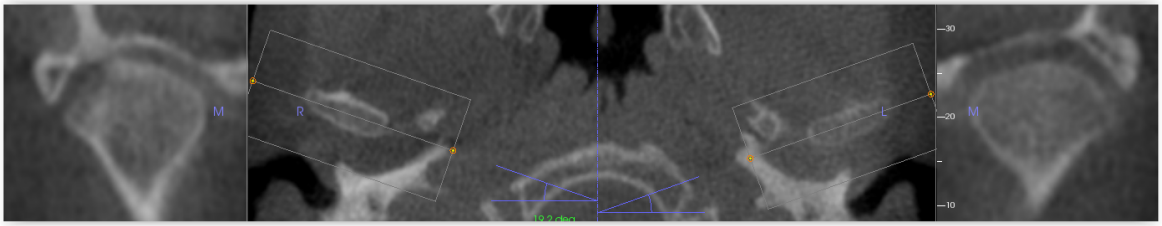
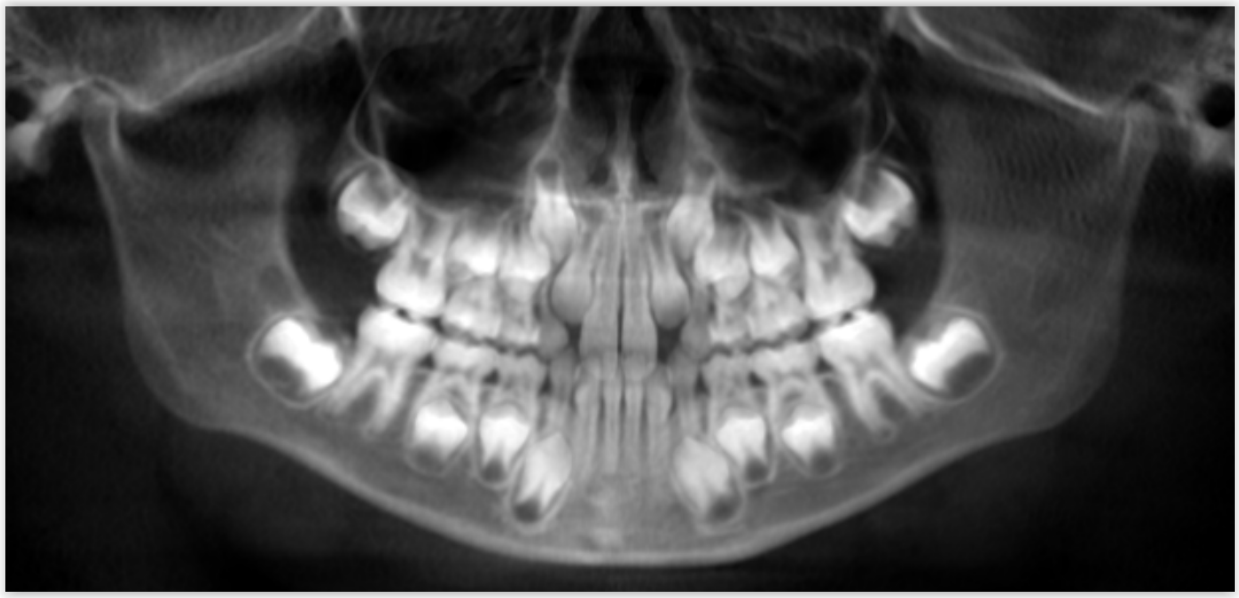


Right Left

TMJ Cross sections



Axial and Coronals



Panoramic reformat

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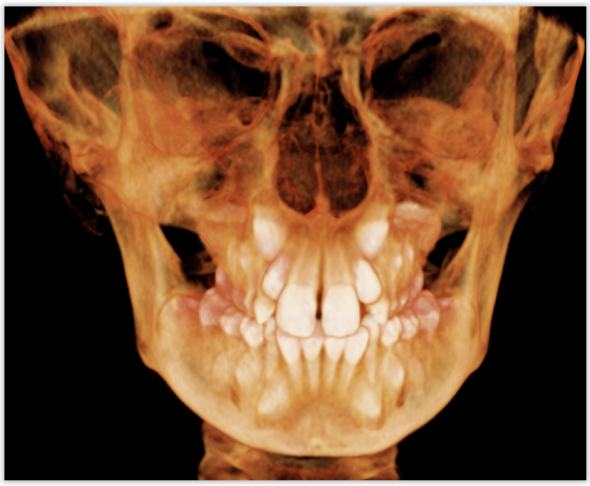
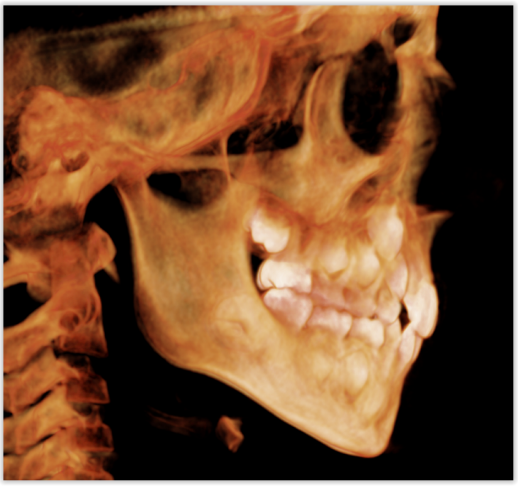
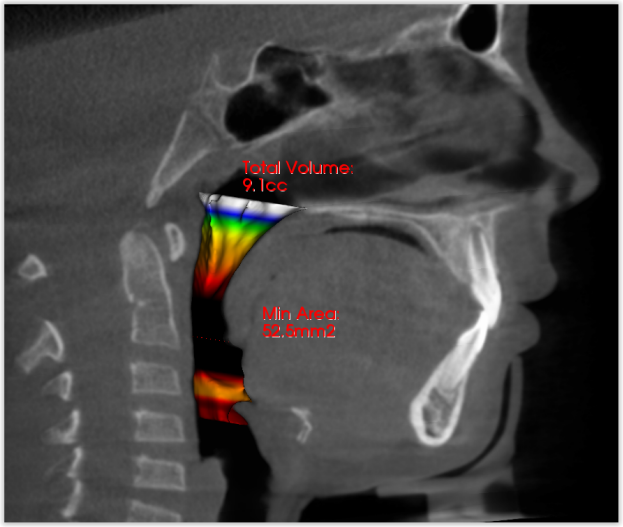


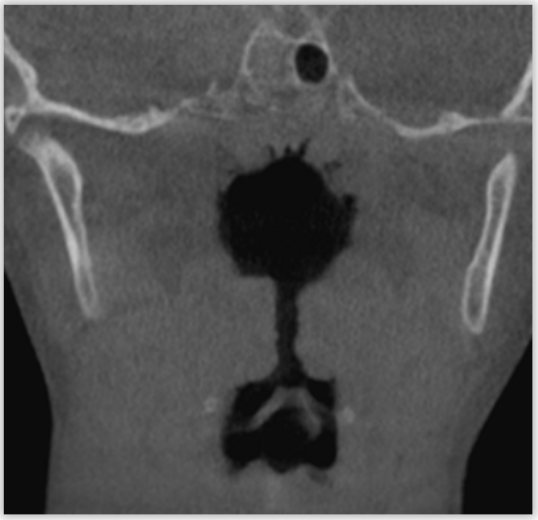
Frontal



Lateral

3D rendering





Airway Analysis