

CT SCAN DICTATION

DATE OF SCAN: March 08, 2022

PATIENT NAME: Dr. Anna Minnema

FINDINGS:

A Cone Beam CT scan was generated throughout the maxillofacial and upper cervical region. Mandibular condylar position was maintained in a superior posture with a bite registration.

TEMPOROMANDIBULAR JOINT FOUNDATION:

Severe distortion is noted at the level of the temporomandibular joint foundation bilaterally. The left condyle has diminutive in size and measures 45 mm² in cross-sectional volume. There is a complete loss of articular spacing on this left side with bone-on-bone contact. The condyle shows evidence of severe arthritic remodeling and sclerosis. A large subchondral cyst is noted and best visualized on the sagittal cuts. The right condyle is even smaller and measures 37 mm². The bone on the right side is completely sclerotic with minimal marrow space. Arthritic remodeling is noted, and a complete loss of articular spacing is seen. The three-dimensional images further elucidate the extreme condylar damage and loss of articular spacing. Classic growth disturbances are also noted on these three-dimensional images, such as a short ramus condyle unit, antegonial notching, and a steep mandibular plane angle.

DENTITION AND BITE:

A panoramic image was generated from the CT scan. No obvious periapical lesions are noted. Plain films of the mandible were also utilized to see the apices of the mandibular incisors. Again, severe mandibular growth disturbances are noted, with the right ramus condyle unit measuring 49 mm in the left ramus condyle unit measuring 55 mm; the molar delta on the left measures 2 mm Class II, and the molar delta on the right measures 4 mm Class II. There is mild diffuse periodontal bone loss. The third molars are not present.

FACIAL PROFILE:

The ANB angulation is 8.3° indicating significant mandibular retrognathia. There is a loss of coupling of the incisors. The anterior profile view and submental vertex view show mandibular asymmetry.

AIRWAY AND SINUSES:

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The minimal oropharyngeal airway volume is diminished and measures 43 mm². The sinuses are free from inflammatory changes. The nasal septum deviates towards the right.

UPPER CERVICAL SPINE:

The sagittal view of the cervical spine shows a reverse lordotic curvature. There is an anterolisthesis of C4 on C5. When viewed from the axial, C1 has a posterior rotation towards the right; C2 and C3 are better aligned.

OTHER AREAS OF NOTE:

None.

IMPRESSION:

There is severe damage noted at the level of the temporomandibular joint foundation. Both condyles are extremely small in size. They are also abnormal in morphology and show damage consistent with degenerative osteoarthritis. The complete loss of articular spacing is worrisome for articular disc herniation and/or perforation. This cannot be seen on CT scan; therefore, MR images have been generated for cross-comparison. The combination of findings in the joints indicates long-standing damage with both an osteochondral growth deficiency and active degeneration. There are secondary growth sequelae noted in the maxillofacial skeleton. The ramus condyle units are very short, and as such, the mandible has a steep plane angle and poor projection leading to a Class II skeletal relationship. This is also seen in the occlusion. It is likely that the maxilla is also hypoplastic in the sagittal plane. The oropharyngeal airway is very narrow, and this is typically seen in poor skeletal growth. In assessing for sources of pain, the dentition and the sinuses were evaluated. The teeth do not show evidence of acute pathology, and the sinuses are clear. Lastly, the cervical spine was evaluated. There is a reverse lordotic curvature and malalignment of C1. This could certainly be a source of cervicogenic pain.



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