RADIOGRAPHIC TECHNIQUE:
Examination with the iCAT CBCT unit was performed in the Radiology Clinic of the Department of Oral Health & Diagnostic Sciences.

Any measurements provided are at a magnification factor of 1:1. Please note that any measurements provided are intended to give an approximation only of the available bone. It is recommended that the clinician perform their own measurements prior to implant placement.

RADIOGRAPHIC FINDINGS:
Evaluation of the CBCT anatomical volume is intended as an overall review for pathology and abnormalities. All viewed structures determined to have no significant findings are reported as no abnormalities detected.

Paranasal Sinuses: No abnormalities detected
Nasal Cavities: No abnormalities detected
Airway: The width of the oropharynx is narrow.
Osseous Structures: Narrowing of anterior atlanto-axial joint with osteophyte formation. Radiopacities are present adjacent to the anterior atlanto-axial joint. Radioluency is present at the inferior extent of C2 vertebral body.
Dental findings: Bone graft material is noted at edentulous sites #19, #20, #31. Residual restorative material apical extent of edentulous site #19.
Other findings: Radiopacities are present on either side of the sella.

DIAGNOSTIC IMPRESSION:
• Right TMJ-clinical correlation with periodic follow-up are needed to determine significance of joint space narrowing.
• Left TMJ-radiographic findings represent severe degenerative changes. Clinical correlation is needed.
• Airway- Enciso et al., 2010 showed that an upper airway lateral dimension <17 mm measured at the minimum cross sectional area of the oropharynx is predictive of OSA. Correlation with medical history and Epworth Sleepiness Scale are needed to evaluate the need for sleep study.
• Osseous structures-joint space narrowing, osteophyte formation, and radiopacities are suggestive of osteoarthritis; no further evaluation is needed in the absence of symptoms. Radioluency in C2-no significant radiographic changes are noted relative to CBCT acquired on 05/02/2012. Radioluency may represent beginning erosion related to osteoarthritis vs. fatty marrow deposit; no further evaluation is needed in the absence of symptoms and/or change in radiographic presentation.
• Residual restorative material edentulous site #19-periodic follow-up is indicated.
• Radiopacities adjacent to sella- radiographic finding is suggestive of vascular calcification possibly secondary to atherosclerotic plaque formation. Please note that this is a relatively common radiographic finding in this age group and that its significance cannot be determined with CBCT. Follow-up with physician may be indicated, especially if additional risk factors are present (ex. diabetes, hypertension, hyperlipidemia, family history, history of CAD, history of CVA).

Evaluation is limited to the capability of CBCT imaging and any further assessment of dental related conditions is best performed by conventional dental radiography. The radiographic findings must be correlated with clinical findings and appropriate diagnostic tests. This is a consultative report only and is not intended to be a definitive diagnosis or treatment plan. For further information please feel free to contact us at: 706-721-2264

Thank you for the referral of this patient and the opportunity to serve your practice.

Allison K. Buchanan DMD, MS
Diplomate, American Board of Oral & Maxillofacial Radiology
THE FOLLOWING ARE THUMBNAIL VIEWS OF IMAGES FROM THE ACQUIRED DATA

TMJs

Radiopacities adjacent to sella
Narrowing of anterior atlanto-axial joint with osteophyte formation and adjacent radiopacities. Radiolucency at the inferior extent of C2 (arrow).

Radiolucency in C2 CBCT scan acquired 05/02/2012

The width of the oropharynx is narrow.
Sites 19 and 20, note: 10mm length measurements extend to mandibular canal and mental foramen
Site #31 note: length measurement extends to mandibular canal