

ENT Consultation Report — Patient 19420531

Study date: 20250418 · Series analyzed: 5309

Executive Summary

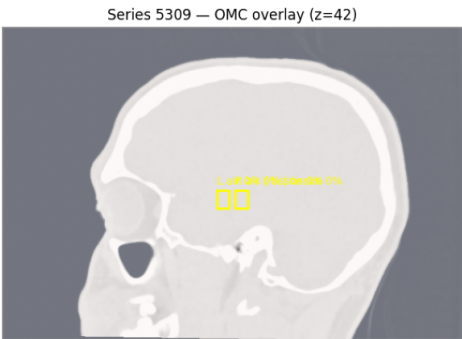
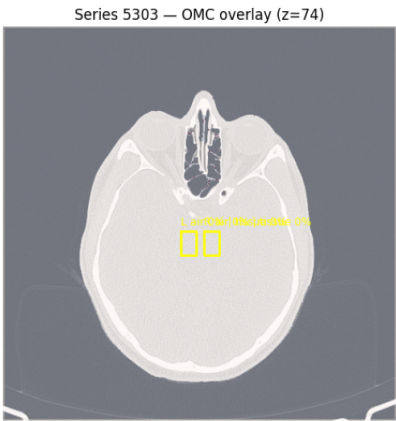
- Complete bilateral OMC obstruction (0% patency left and right).
- Severe chronic osteitic change: 45.5% of sinus wall bone (operational normal < 5%).
- Retention cyst burden: 30 lesions (operational normal 0–2).
- Nasopharyngeal tissue predominance with airway near 0% patent.

Key Metrics

Metric	Value (5309)	Operational Normal
OMC Patency — Left	0%	60–100%
OMC Patency — Right	0%	60–100%
Sclerotic Bone Fraction	45.5%	0–5%
Retention Cyst Count	30	0–2

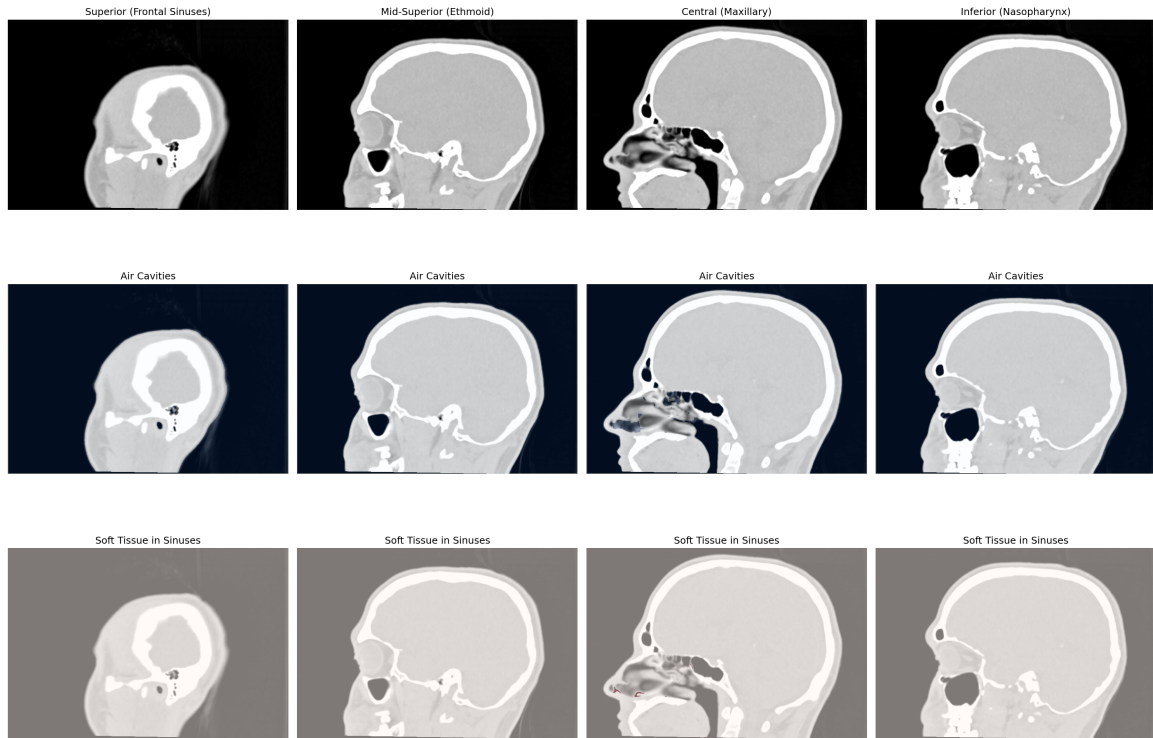
Representative Figures

Bilateral OMC Obstruction — Air (blue), Tissue-in-sinus (red), ROI (yellow)

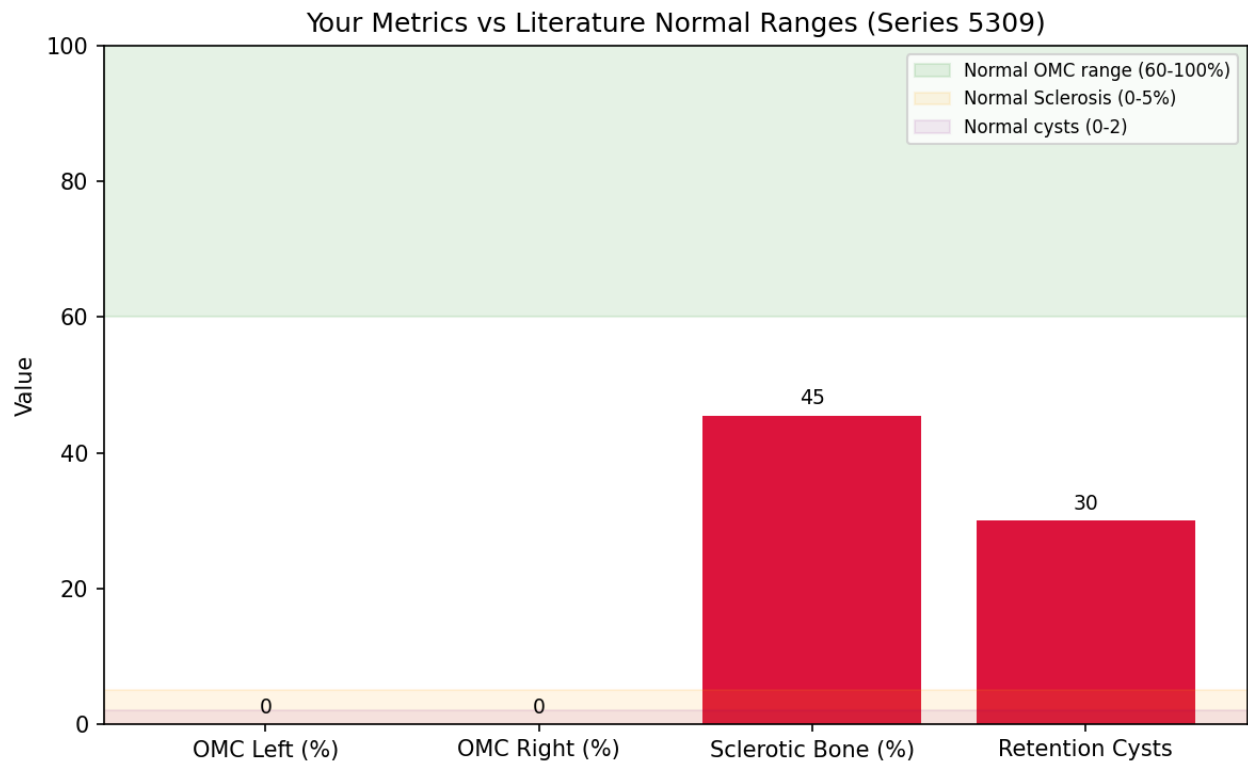


Bilateral OMC overlay: Air (blue), Tissue-in-sinus (red), ROI (yellow).

Patient 19420531 - Post-Steroid Clinical Analysis



Key axial slices (series 5309) with overlays.



Quantitative comparison vs operational normals.

Methods (Operational)

Axial CT series were processed into NIfTI preserving voxel spacing. Air threshold -400 HU; soft tissue $-100..100$ HU; bone >200 HU, osteitis >800 HU for sinus wall sclerosis. OMC patency estimated from symmetric rectangular ROIs in mid-facial slices. Primary metrics from series 5309 (bone-optimized reconstruction) verified against series 5303 (1 mm axial).

Clinical Interpretation

- Structural obstruction at bilateral OMCs corresponds with impaired drainage and risk for recurrent sinusitis.
- Elevated sclerotic fraction indicates prolonged inflammatory remodeling of sinus walls.
- Retention cyst burden reflects chronic mucous stasis.
- Nasopharyngeal tissue predominance likely contributes to airway resistance.

Recommendations for Discussion

1. Consider FESS targeting OMC widening and removal of obstructing tissue.
2. Allergy/Immunology evaluation to identify and mitigate inflammatory drivers.
3. Medical management: intranasal corticosteroid and saline irrigation regimen; environmental controls.
4. Follow-up: repeat imaging in 3–6 months to quantify improvement vs baseline.