



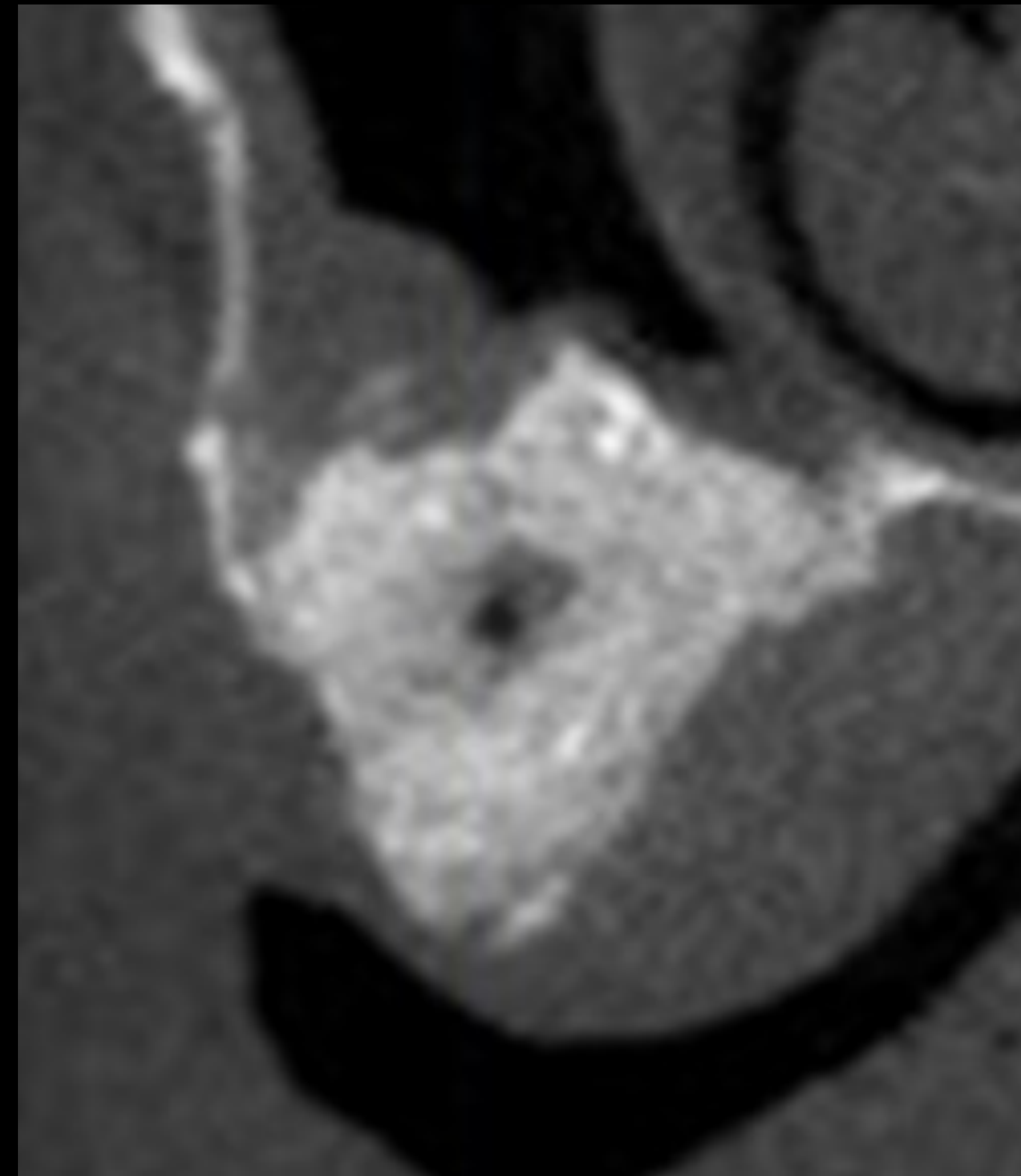
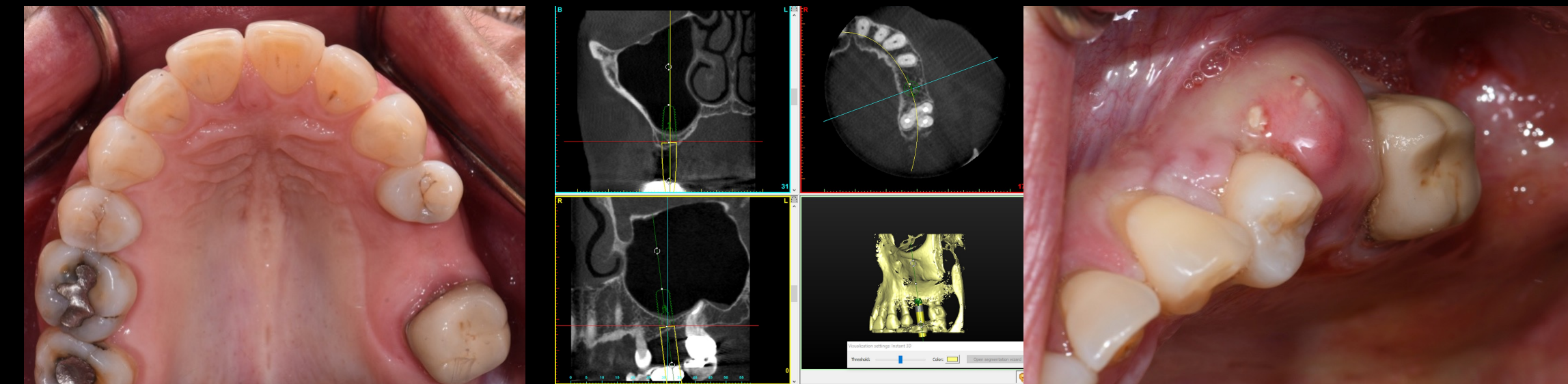
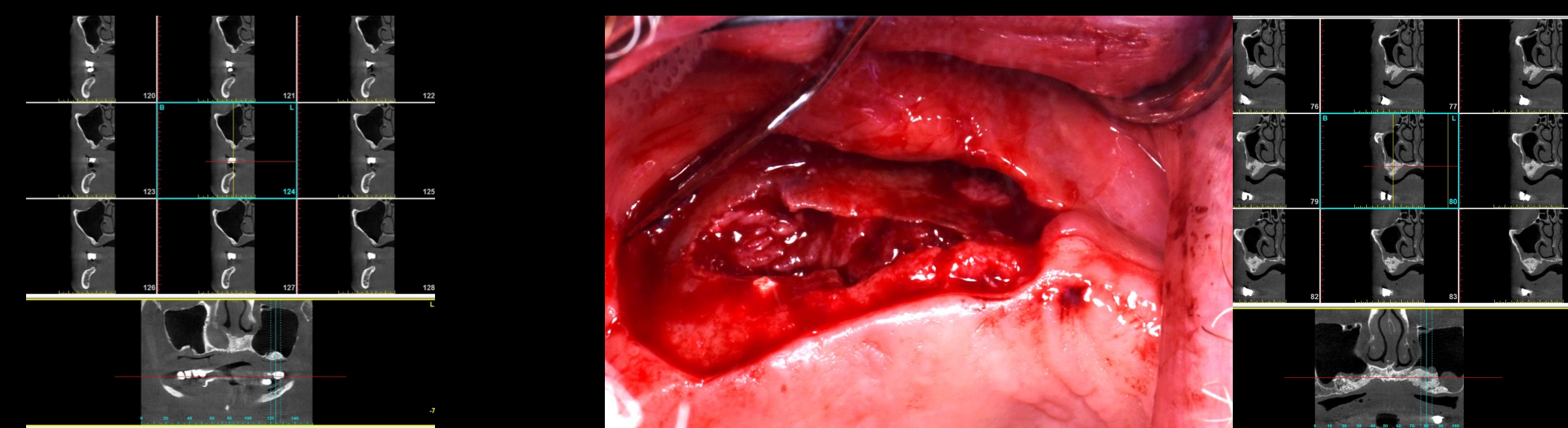
Diagnosis and Treatment of Maxillary Sinusitis after Implant Placement: Two Case Report

Vatsal Jaipuria, Gebin Zhu, Sirajuta Praisonta, Arvin Kadempour, Stuart J Froum, Sang-Choon Cho, Leena Palomo
Ashman Department of Periodontology and Implant Dentistry New York University College of Dentistry



Maxillary sinus augmentation procedure provides a predictable outcome, keeping the implant placement success rate above the 90th percentile. However, post-operative complications such as perforation, bleeding, and infection can occur as in any surgical procedure. Despite the infrequent infection rate of 2-5.6%, the outcome could compromise the patient's well-being with blockage of ostium, severe pain, and altered

sinus physiology. Symptoms of early infection and delayed infection are exhibited differently with early infection presenting with more pain and purulent discharge. Therefore, early maxillary sinus infection requires more rigorous management. Clinical recommendation and management will be discussed in the two following case reports of early postoperative complication and delayed postoperative complication.



Author	Year	Journal	Onset of Symptoms	Clinical Findings	CBCT Findings	Treatments
Testori T	2019	Perio 2000	3 weeks	<ul style="list-style-type: none">Nasal obstructionPurulent nasal drainageFlap dehiscenceSuppurationOroantral fistula formation	<ul style="list-style-type: none">The graft is not contained under the sinus membraneLoss of graft materialMaxillary cyst formation	<ul style="list-style-type: none">I&DPenrose drainComplete graft removalAugmentin (Amoxicillin 875 mg/Clavulanic acid 125 mg) BID P.O. for 10 days or LevaquinMetronidazole 500 mg TID P.O. for 7-10 daysPrednisone 40 mg for 3 days, 20 mg for 3 days, 10 mg for 3 daysDoxycycline putty for 2 minI&DComplete graft removalDoxycycline 100 mg BID P.O. for 2 weeksI&DAugmentinNasal decongestantI&DPartial graft removalAugmentin 1g BID P.O. for 1 weekDoxycycline putty (diluted with 0.1 to 0.2 ml of saline) for 2 minI&D
Johnson T	2018	CAP	3 weeks	<ul style="list-style-type: none">Purulent nasal drainageYellow pustule	<ul style="list-style-type: none">A well-circumscribed radiolucent area within the allograft particles beyond the margin of the lateral windowLoss of biomaterial particles erupting into maxillary sinus	<ul style="list-style-type: none">I&DComplete graft removalDoxycycline 100 mg BID P.O. for 2 weeksI&DAugmentinNasal decongestantI&DPartial graft removalAugmentin 1g BID P.O. for 1 weekDoxycycline putty (diluted with 0.1 to 0.2 ml of saline) for 2 minI&D
Moreno J	2013	IJOMS	3 weeks	<ul style="list-style-type: none">AbscessDehiscence with drainage	<ul style="list-style-type: none">Partial exposure of the simultaneous onlay graftLoss of graft material	<ul style="list-style-type: none">I&DComplete graft removalDoxycycline 100 mg BID P.O. for 2 weeksI&DAugmentinNasal decongestantI&DPartial graft removalAugmentin 1g BID P.O. for 1 weekDoxycycline putty (diluted with 0.1 to 0.2 ml of saline) for 2 minI&D
Urban I	2012	IJOMI	1-3 weeks	<ul style="list-style-type: none">Fistulous tract extending to oral cavityRecurrent facial swellingAbscess	<ul style="list-style-type: none">Loss of bone graft particles through the fistulous tracts or through the borders of the flap (popcorn sign)	<ul style="list-style-type: none">I&DComplete graft removalDoxycycline 100 mg BID P.O. for 2 weeksI&DAugmentinNasal decongestantI&DPartial graft removalAugmentin 1g BID P.O. for 1 weekDoxycycline putty (diluted with 0.1 to 0.2 ml of saline) for 2 minI&D
Barone A	2006	IJOMI	3-5 weeks	<ul style="list-style-type: none">Onlay bone and grafting exposure or mobilitySuppuration	<ul style="list-style-type: none">Perforation of the sinus membrane	<ul style="list-style-type: none">I&D

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