INTRODUCTION

Chronic maxillary sinusitis of dental origin (CMSDO) is a common cause of maxillary sinusitis and accounts for approximately 10% to 12% of isolated maxillary sinusitis. Dental implants can lead to CMSDO due to peri-implant infection resulting in sinus inflammation and oronasal exposure of the maxillary sinus or physical displacement of the implant into the maxillary sinus. Treatment of CMSDO initially involves antibiotics, nasal saline irrigation, nasal decongestants, and intranasal or oral steroids. If conservative therapy fails, surgical intervention has been warranted to remove the source of infection. Endoscopic medial maxillary antrostomy (EMM) has been reported for control of maxillary sinusitis due to peri-implants. However, patients may present with persistent disease despite surgical intervention. In these instances, the removal of infected dental implants has been required usually through an open sublabial approach resulting in the loss of the implant.

We propose performing an EMM with post-operative culture-directed antibiotic therapy, oral steroids, and nasal irrigation for the management of recalcitrant disease that would have traditionally required implant removal.

CASE REPORT

The patient is a 63 year old female who had undergone placement of seven bilateral zygomatic dental implants for construction of a non-removable bridge in April 2009. Subsequent to placement of the implants, she developed multiple episodes of left maxillary sinusitis including significant facial pressure and swelling which was unsuccessfully cleared with oral antibiotics and nasal saline irrigation. She underwent a left endoscopic sinus surgery on December 2009. Post-operative antibiotics and nasal irrigation. Despite her surgery, she continued worsening symptoms including left sided maxillary sinus pressure, headache, and significant drainage from her left maxillary sinus. Nasal endoscopy revealed a widely patent left maxillary antrostomy with thick mucopurulent content in the maxillary sinus and polypoid degeneration of the mucosa. Patient was treated with prolonged course of oral antibiotics, oral steroids, and intranasal saline. However, she failed to clear her chronic sinusitis despite maximal medical therapy.

RESULTS

The mean age of 62 years old was 32.1. The mean post-operative SNOT-20 score at 6 weeks was 8.4. The sinonasal culture results showed growths of methicillin sensitive staphylococcus aureus (2), klebsiella oxytoca (1), and no growth (2). The antibiotics were changed to appropriately treat the cultured organism when applicable.

CONCLUSION

Endoscopic medial maxillary antrostomy provides a safe treatment option for CMSDO due to osseointegrated dental implants that have failed maximal medical therapy. Based on our series, we propose EMM as a viable alternative for those patients that have traditionally required implant removal as definitive therapy.