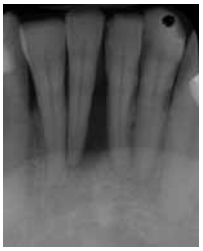
Non-surgical Bone Regeneration Using Emdogain

Below is a case presentation posted on Hygienetown.com, followed by advice and experience from other clinicians like you.

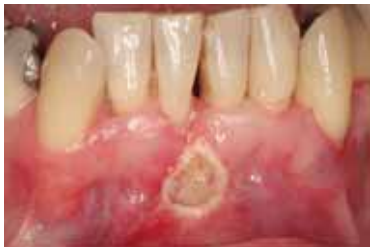
PerioPeak
Post: 1 of 9
Posted: 10/3/2006
Total Posts: 94

Introduction: This tooth was treatment-planned for extraction followed by bone grafting and eventual implant by two very good local periodontists. The patient considered another option; perioscopy/Emdogain. A quick and easy non-surgical approach. He did not care about cosmetics; he just wanted to keep his natural tooth. #25 was determined to be vital so we proceeded. Patient is a healthy, non-smoker with a lifelong history of perio problems. Family history of perio.

(First photo) #25 mesial 12 mm, facial probed 10 mm, Class II mobility, no occlusal trauma issues. Exudate present, high frenum attachment, MAG. Patient placed on host modulated therapy before perioscopy appointment.

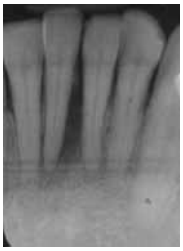


(Left) Before x-ray.



(Left) Laser frenectomy performed after perioscopy/Emdogain completed. No other laser treatment performed. Note: very little tissue trauma from perioscopy, simple and quick 20-minute appointment.

(Right) Six weeks after, 3 mm probing mesial. All probing WNL, no bleeding, no mobility.



(Far Left) 2 mm facial probing reattachment possible due to absence of frenum pull.

(Middle) Six weeks after: Rapid regeneration occurring, along with rapid supragingival calculus build up. Cleaned the supra off today. Will take X-rays at three, six, nine and 12 months. Fun stuff for a hygienist.

Conclusion: Seeing the results of this case recently have prompted me to reconsider what the possibilities are non-surgically. Interesting, has anyone seen this type of rapid regeneration before? Is this the future of hygiene? Feedback appreciated. ■

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periosupport
Posts: 2 and 3 of 9
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Dr. Mellonig who is a professor of perio at University of Texas at San Antonio reported new attachment occurring after scaling and root planing [SRP] after examining some human block sections at the recent San Diego meeting of the American Academy of Periodontology [AAP]. Other researchers have previously reported that there was no additional benefit in utilizing Emdogain in conjunction with SRP. His results I believe have not yet been published. Nice clinical result!

It will likely take about six months to visualize any radiographic changes. I do recommend that you have the patient use an antimicrobial rinse like chlorhexidine twice daily during that time period. What do you think the etiology of this problem was to create such significant attachment loss?

Just to split hairs, I suggest the use of the term radiographic bone fill rather than regeneration since you would have to take a block section in order to confirm new attachment. There may be a long epithelial attachment present. These are simply microscopic distinctions which clinically look the same. Once again a great result! ■ Albert

amybethrdh2
Post: 4 of 9
Posted: 10/4/2006
Total Posts: 266

Thanks for posting your case! I have a few questions about it. I have also read that there is little support for the use of Emdogain with scaling and root planing procedures. I have never used it personally, so I am not familiar with how to place, technique involved and what not. Did you do the endoscopy and then just squirt it down into the base of the pocket? Is this therapy technique something you perform regularly, meaning placing Emdogain along with endoscopy? Just curious.

Also, if you don't mind sharing a ballpark range of what this would cost the patient. Do you bill out for the Emdogain (I think it's a fairly expensive product, if I am remembering correctly)? ■ Amy Cody, RDH

PerioPeak
Post: 5 and 6 of 9
Posted: 10/5/2006
Total Posts: 94

Thank you both for the positive feedback. Generally, the radiographic bone fill is well on its way at three months. This is the first time I have taken an X-ray at six weeks. You can see why I'm sure, just had to see what was going on. If you look at the films closely there is quite a bit more bone fill in six weeks than first meets the eye, take another look.

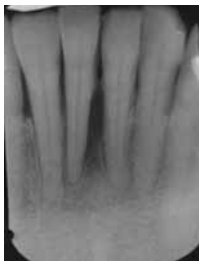
Because I have the patient on Periostat before and after treatment, no antimicrobials are necessary (took many years to find the best "recipe" for the best result using these technologies).

I have no doubt that this etiology is simply genetic (there is no other etiology I can conclude). I will have to post his FMX and the bone fill going on elsewhere (I will do it at his three month).

Root planing is not effective enough to remove enough subgingival calculus (toxins), so I do not doubt that the results would be poor. Microscopic debridement is much more effective (Tom Wilson, a periodontist in Texas did research using the endoscope with surgery vs. just surgery. The endoscopy case results were MUCH better). I'm sorry I don't have that link for you.

Cost: This tooth with perioscopy and Emdogain $250. Got a patient in the chair, will write more later.

[Posted: 12/07/06]



This is the four-month follow-up X-ray to this case. Tissue is still tight and healthy and the bone is still regenerating, as seen in this follow-up X-ray. This patient has regenerated bone in many other areas as well. He is glad he did not pursue the surgical route, including extraction of this tooth. He is very happy indeed! Is this the future of dental hygiene? ■

periosupport
Post: 7 of 9
Posted: 12/07/06
Total Posts: 14

There is some nice radiographic bone fill developing! Could tell me how long you had the patient on Periostat before initiating therapy? Did you use any root conditioner, like PrefGel? If so, how did you apply it and how long have you kept the patient on Periostat? Could this be the future of dental hygiene? Absolutely! ■ Albert

Find it online at www.hygienetown.com

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