

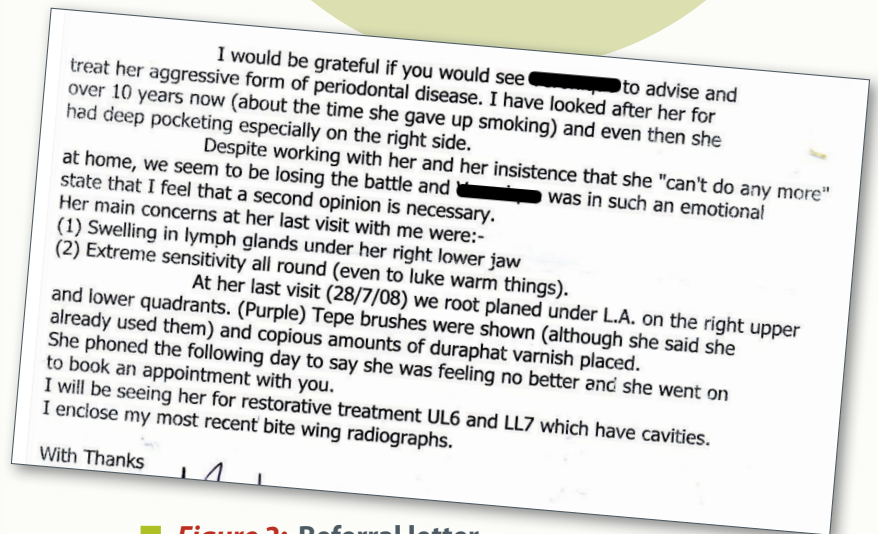
A CHALLENGING CASE

Calculus can be difficult to remove and some dental healthcare professionals underestimate this fact. Furthermore, ‘ambulance chasing’ lawyers remain predatory and the threat of a patient complaint and litigation is ever present! Ever mindful of our mental health, this case study highlights some of the differences between routine occupational hazards and unnecessary avoidable stresses.

Introduction

This lady was referred to me for specialist periodontal care in 2008, when I removed four teeth at her request (Fig. 1 shows two of them). These teeth had been root planed (with local anaesthetic) by the referring dentist one week prior to me extracting them. In fact, they had been root planed twice a year (with local anaesthetic) for 10 consecutive years by the referring dentist prior to the referral.

■ **Figure 1: Teeth had been root planed one week prior to being extraction.**



■ **Figure 2: Referral letter**

The referral

I anticipated that this case was going to present some challenges as soon as I received the letter of referral (Fig. 2) and contacted the referring dentist to express my concerns. We discussed the case and he confided in me that his patient was exceptionally emotional and extraordinarily upset. He also confided in me that she had been upset for some time and that he was suspicious that she may have contacted the General Dental Council to express her concerns. We were both very clear with each other that the risk of a significant complaint, or the escalation of an existing one, was of the highest order possible. Under the circumstances, I invited him to come to his patient’s consultation and join me in a joint consultation. This, in my experience, is helpful; he declined. Worryingly, and unhelpfully, and selfishly, he said: “Tell her what you need to tell her without dropping me in it”.

The consultation

The consultation was one of the most difficult of my career; the patient arrived in tears and cried throughout it. She had not slept for three nights and the painkillers and antibiotics were doing nothing to reduce her discomfort.

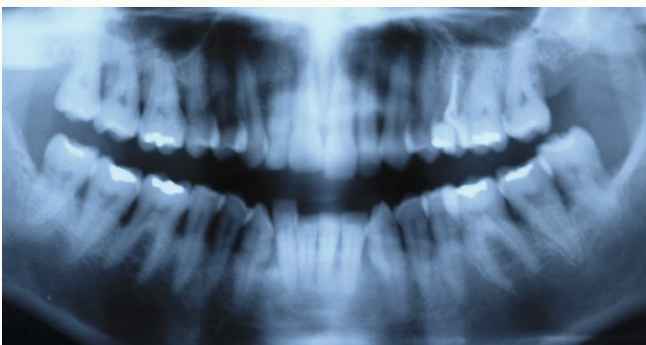
She told me that she was medically fit and healthy, had no allergies and was not taking any medications or tablets other than painkillers and antibiotics. She had stopped smoking approximately 11 years earlier.

The examination revealed plaque free teeth. The gums did not bleed when they were gently stimulated with a probe however the bleeding on probing was close to 80%. The periodontal pockets were generally elevated above 3 mm and between 5-9 mm at mesial and distal sites in all sextants with minimal buccal recession. All teeth demonstrated

■ **Figure 3: The patient's teeth and gums at initial consultation**



■ **Figure 4: Panoramic radiograph supplied by dentist had been taken two years prior to referral and UR8 and LL8 had been removed by her dentist since this time.**



mobility between grades 1-2 and were extremely sensitive to touch; a few were untouchable. The upper left anterior teeth had over-erupted by between 1-2 mm. Full mouth long-cone periapical radiographs (LCPAs) were performed. The LCPAs confirmed that the panoramic radiograph supplied by the dentist had grossly under recorded the amount of sub gingival calculus and the extent of bone loss.¹

Diagnosis

A diagnosis of advanced active chronic generalised adult periodontitis with bone loss up to 80-90% around some teeth was made. The upper left second molar and the lower left second molar were diagnosed with irreversible pulpitis; several other posterior teeth were also suspected of having pulpitis.

Post-examination discussion and consent

The discussion remains one of the most difficult I have ever had; the patient was upset, tired and angry. Her husband, who was eventually escorted out of the surgery, was upset, angry and volatile. Everything I said was met with anger. It is a strange phenomenon to be shouted at by two people you have never met before when you are working hard to win over their confidence. It gave me an insight into what her dentist might have experienced and a possible explanation for the residual calculus. After the consultation and before the end of the day, without being asked to do so, the patient hand delivered a copy of her dental records to my receptionist.

Treatment plan

A comprehensive risk assessment was not necessary as the situation was clearly evident. Broadly speaking the treatment was divided into:

1. Surgical debridement of all pockets above 3mm
2. Extraction of UR7, UL7, LL7 and LR8
3. Review and revise
4. Maintenance therapy

The decision to take the surgical approach was made easier as the patient ardently refused to agree to a repeat of anything previously provided by her dentist. She also refused to a 'treatment and review' approach on the teeth with pulpitis, instead, insisting that they be removed. Her refusal was helpful as I had anticipated some difficulties getting past the tight gingival cuff to the calculus deeper in the pockets below. This is usually where it is most difficult to remove² and I find it easier to remove when I can see it.³

Treatment

At the patient's insistence, which was understandable, treatment commenced the day following the consultation. It was carried out as 'full mouth disinfection' in two treatment sessions over two consecutive days (Figs. 5-9). At the end of the first session, she said, "I'd like to my keep my teeth" and, then, explained that she was talking about the ones I had extracted. She also said, "I won't be leaving without them", and, "they are still my property".

■ **Figure 5: Smile view one week after treatment**



■ **Figure 6: Upper left palatal view one week after treatment**



■ **Figure 7: Upper right palatal view one week post treatment**



■ **Figure 8: Lower left lingual view one week post treatment**

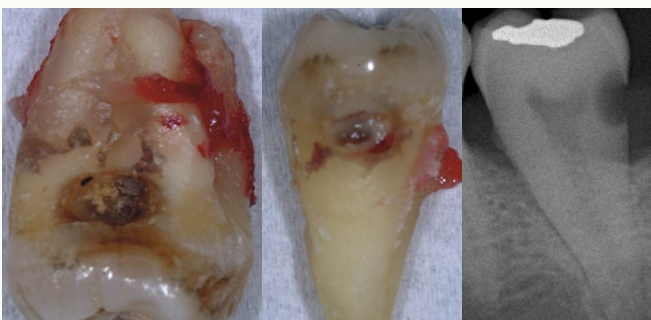


■ **Figure 9: Lower right lingual view one week post treatment**



The aim of root surface debridement is to create a smooth surface from which the patient can then easily remove newly formed plaque bacteria. It is a professional responsibility to remove it without unnecessarily damaging the root surface, this is important to note because all of the instruments available for its removal leave scratches behind. My preferred approach is to use an ultrasonic scaler to remove the bulk, this leaves a noticeably rough surface.⁴ To get the surface smooth I remove any residual calculus using hand instruments, mostly a curette and occasionally a scaler. I complete the task by checking the smoothness with floss and burnishing any sharp edges or potential plaque traps.

Figure 10 shows the caries which had resulted in irreversible



■ **Figure 10: Caries causing the irreversible pulpitis**

pulpitis. When working on calculus which may have decay under it, I use the instruments even more carefully because it is easier to damage a softer surface.⁵

The healing period

The sutures were removed 10 days after the treatment. Thereafter, the patient was seen at two weekly intervals for three months for supportive periodontal therapy (SPT). Specifically, this was the mechanical disturbance of the microbial biofilm at the dento-gingival margins. This kind of intensive SPT in the healing period is common in research.⁶

The unexpected benefit of seeing a patient within weeks of treatment is that I get to see the residual calculus I have inadvertently failed to remove. It continues to astonish me, but, as hard as I try, I always find some and I remove it in the first few SPT sessions. On rare occasions, if it cannot be removed, I burnish it.

A review was conducted four months after the initial therapy. The examination revealed plaque free teeth and a plaque score at the dento-gingival margin below 20%. The gums did not bleed when they were gently stimulated with a probe and bleeding on probing was reduced to less than 10%. Periodontal pockets had been reduced to below 2mm and elevated pockets had been completely eliminated. All teeth demonstrated mobility between grades 1-2, they were vital when tested with an electronic pulp tester and there had been no further increase in overall temperature sensitivity.

Long-term

The patient has continued an uninterrupted treatment plan since she first presented in 2008 and continues to attend my practice at three monthly intervals for supportive periodontal therapy. Remarkably, I have not had to repeat active treatment, although 4 mm pockets started to reappear in year four after the initial therapy. Shortly after the Covid pandemic lockdown in 2020 she no longer wanted to have photographs taken, the ones below in Figures 11-12 were taken in 2019.

■ **Figure 11: Left hand side buccal view 11 years after active treatment**



**Figure 12: Right hand side buccal view
11 years after active treatment**



Conclusion

In 2009 the patient initiated a legal claim against her dentist for professional negligence and around 2011 her claim was successful. She was awarded significant damages. I truly regret being embroiled in this case; the stress was extraordinarily high, and, in my opinion, avoidable. That said, I did what I could to assist a referring colleague who had gotten himself into some bother.

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References

1. Tugnait A, Clerehugh V, Hirschmann PN. The usefulness of radiographs in diagnosis and management of periodontal diseases: a review. *J Dent.* 2000;**28(4)**: 219-226.
2. Rabbani GM, Ash MM, Caffesse RG. The effectiveness of subgingival scaling and root planing in calculus removal. *J Periodontol.* 1981;**52(3)**:119-123. doi: 10.1902/jop.1981.52.3.119.
3. Wylam JM, Mealey BL, Mills MP, Waldrop TC, Moskowitz DC. The clinical effectiveness of open versus closed scaling and root planing on multi-rooted teeth. *J Periodontol.* 1993;**64(11)**:1023-1028. doi: 10.1902/jop.1993.64.11.1023.
4. Kumari N, Johnson L, Yadav H, Das A, Umrao B, Gera R. Effect of hand and ultrasonic scaling-root planing methods on tooth surface topography: an in-vitro atomic force microscopy study. *Cureus.* 2023;**15(10)**:e46925. doi: 10.7759/cureus.46925. eCollection 2023 Oct.
5. Kim SY, KangMK, KangSM, KimH-E. Effects of ultrasonic instrumentation on enamel surfaces with various defects. *Int J Dent Hyg.* 2018;**16(2)**:219-224. doi: 10.1111/idh.12339. Epub 2018 Mar 13.
6. Lindhe J, Westfelt E, Nyman S, Socransky SS, Haffajee AD. Long-term effect of surgical/non-surgical treatment of periodontal disease. *J Clin Periodontol.* 1984;**11(7)**:448-458. doi: 10.1111/j.1600-051x.1984.tb01344.x.

Cite this article:

Ahmed H. A challenging case! *Dental Health* 2024;**63(6)**:48-51. <https://doi.org/10.59489/bsdht149>

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