Your Role in the Management of Periodontal Disease

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Periodontal disease, an inflammatory reaction to plaque, affects almost 90% of the population.

The most common manifestation being gingivitis which is reversible. Periodontitis in which there is loss of supporting bone for teeth affects a smaller proportion, between 25 and 40%, but is far more devastating.

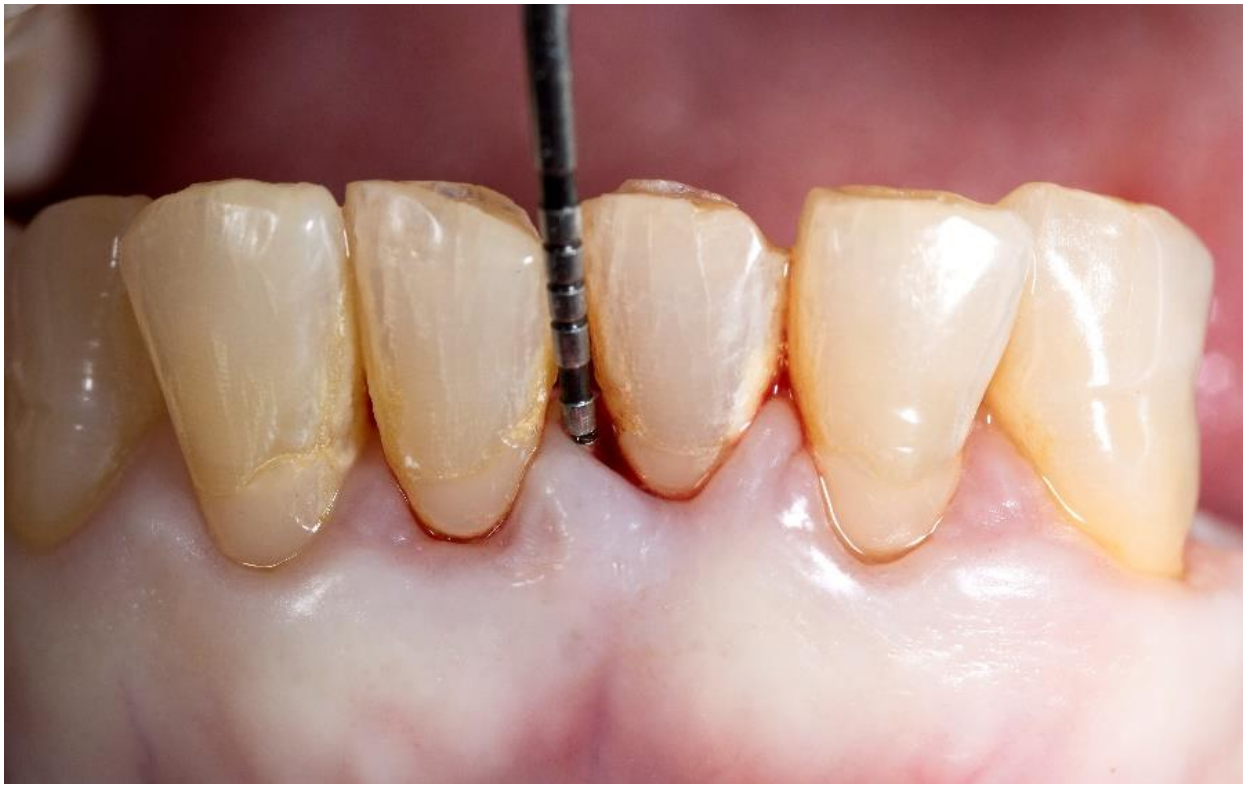
Periodontitis requires a susceptible host (the patient) and plaque which is ubiquitous. Risk factors such as smoking and poorly controlled diabetes may make the situation worse.

What can a General Dentist do?

If you suspect periodontitis in your patient here are the key steps I recommend.

Recognition of disease

The first question to ask is does your patient have gingivitis or periodontitis (i.e. is there loss of bone and attachment?)



Recognition of disease is fundamental to Periodontology. Periodontitis is an insidious, chronic disease.

Periodontal probing is the main screening tool we have easily available that is both effective and discriminates well.

A 6-point pocket chart in appropriate areas will provide a baseline examination as well an educational chart which can be used to communicate problems to the patient.

Making a diagnosis is based on probing which we should be probing at all examinations before acting on our findings.

The new grading and staging system for periodontitis is useful to help us understand who is most at risk and how extensive the disease is.

Stage 1: Up to 15% bone loss. This can be determined on bitewings.

Stage 2: Periapical radiographs required. Bone loss up to coronal 1/3 of the root

Stage 3: Periapical radiographs required. Bone loss involving the middle 1/3 of the root

Stage 4: Periapical radiographs required. Bone loss involving the apical 1/3 of the root.

The grading system is in relation to age. It helps flag up patients who have lost an excessive amount of attachment. Periapical radiographs are required to determine the amount of bone loss in relation to the age of the patient. Now, this is an area that can be a little confusing, the way I simplify it as follows:

Grade A: Bone loss less than 50% of patients age. A 50 year old with 20% bone loss would be grade A

Grade B: Bone loss of between 50 – 100% of patients age. A 50 year old with 40% bone loss would be Grade B.

Grade C: Bone loss greater than 100% of patients age. A 50 year old with 60% bone loss would be Grade C.

As you can see, a patient who is grade C has lost more bone over a shorter period, and hence is more at risk. They may have a more exaggerated response to plaque and hence need to be better at removing plaque than average.

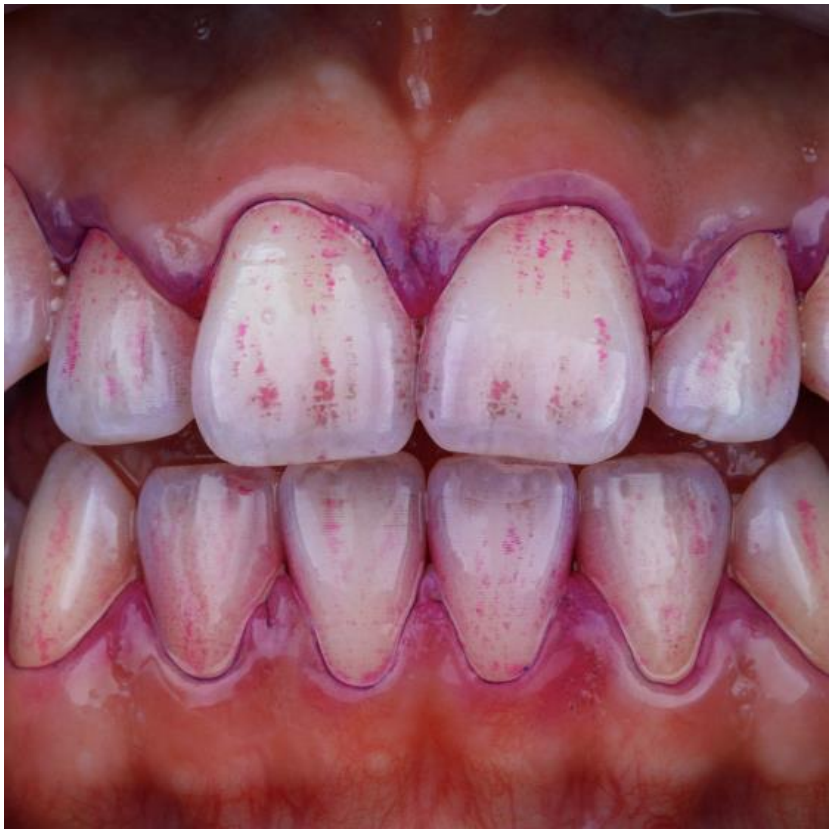
Education with regards to optimal oral hygiene.

Aetiology. The first step is explain why they have developed periodontal disease and that it is due to plaque and their body's response that gives rise to inflammation which shows up as swollen red, sore gums - gingivitis.

If they additionally have bone loss and periodontitis, then explain that they have a tendency to lose bone in the presence of plaque, rather like an allergy. They are sensitive to plaque and when they do not remove it adequately the bone holding the teeth in place shrinks away. Ultimately teeth may become loose and fall out if left unchecked.

In my experience, very few people have been taught to clean their teeth effectively. It is just 'something they do', a habit. Most people also believe they clean well. Do we collude with this assumption or do we challenge, educate and help them make changes to their behaviour?

When it comes to an appropriate level of plaque removal for periodontal stability, I work to an approximate plaque score of 15% of surfaces with detectable plaque. If there is too much plaque present the disease will not be controlled and it doesn't really matter if you perform excellent PMPR as the deposits will just reform and the disease will continue its course.



In terms of giving oral hygiene advice, I believe that disclosing is a phenomenally useful tool to show patients the plaque they are missing.

However, I have found that Practitioners can be reticent to disclose for fear of patients feeling insulted or because they are hard pressed for time.

I find that patients respond well to a gentle, guiding approach. Explaining the process and how it helps is a good way to get them onside.

Regarding time, disclosing can actually be a very quick and efficient method of communicating as well as challenging assumptions and helping change behaviour.

I am not suggesting formal plaque scores rather a quick estimate of surfaces with detectable plaque, and a visual guide for the patient in a mirror. A couple of minutes is enough to put Vaseline on the lips, apply disclosing solution with a pledget of cotton wool, rinse and show in a mirror.

When it comes to advising patients on how to improve their oral hygiene routine to help reduce plaque, I recommend the following:

1. For most patients getting access to the difficult to reach areas is more important than whether they use a manual or electric toothbrush. A small head on the brush is a priority.
2. Use a Bass type technique to brush with little rubbing motions into the gingival crevice. No horizontal component to the brushing.
3. Use the largest interdental brushes that will fit in spaces between teeth as these will be most effective at removing plaque.
4. Pull the lower lip away to gain access around the lower incisors. Many people guard with the lip and so not allow the brush to the gingival margin.
5. Waterjets have a very limited role in plaque removal from teeth. Patients love them as they see food debris being removed, however they are often ineffective at removing sticky plaque where the bacteria have adapted to adhere to human and mammalian teeth over millions of years.

Other Risk Factors for Periodontitis

Smoking is a major risk factor for periodontitis. We know that patients who smoke have worse periodontal disease and respond less well to treatment. I always point my patients who smoke towards smoking cessation services.

Diabetes and a poor control thereof is another risk factor. I routinely ask for a patient's HbA1c, this gives an average estimate of control over the last 3 months. Many patients will

now have this available on their NHS App. Where I feel a patient's control on their diabetes is causing a big enough risk to their health I always refer them to their GP or diabetic clinic.

Removal of deposits and disruption of the plaque biofilm (professional mechanical plaque removal PMPR) –Scaling or debridement.

Biofilms are tough to remove and reform quickly.

Fortunately, our ultrasonics are very effective at both disruption of the biofilm and removal of hard deposits but they are uncomfortable for many patients. Effective initial periodontal therapy is likely to require some infiltration of local analgesia as teeth are often sensitive and both ultrasonics and hand instruments are uncomfortable in the presence of inflammation. It takes time to remove deposits which have been present for years and I do understand the constraints that many working within the health service are subject to.

I routinely allow 2 hours to adequately carry out full mouth debridement. 20 minutes with a hygienist, though useful will have little impact.

Re Evaluation

In certain cases, the patient does not respond to initial periodontal therapy and this can be for a number of reasons, including medical or other complications, or if the disease is particularly aggressive.

Once the initial therapy PMPR is complete, the outcome should be assessed via pocket charting. The use of 6-point pocket charts as appropriate. This can then be compared to the baseline chart and is a very useful tool for decision making.

Where a favourable response has been achieved, the patient should move into a maintenance programme with regular hygienist appointments. However, in cases where the periodontal disease persists, it might be time to refer to a Specialist Periodontist.

Find out more about periodontitis, it's treatment and the specialist care offered at Audley Dental Solutions.

https://www.audleydentalsolutions.co.uk/dental-services-for-referring-practices

If you want to get in touch to discuss any of periodontal treatments, please contact me on rachel@audleydental.co.uk