WINSPERT

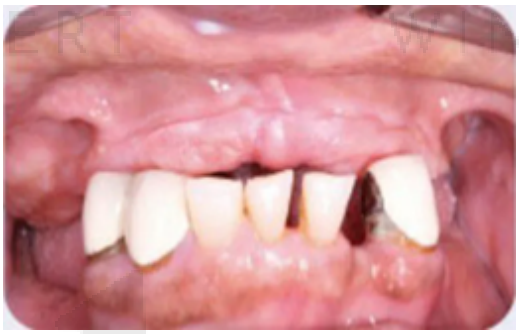
OSCE CASES

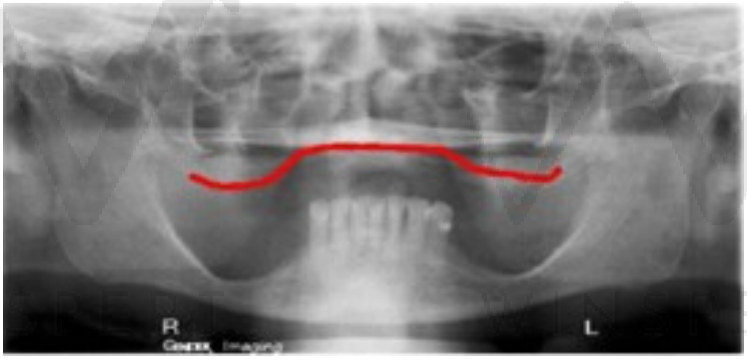
NEW CASES

WINSPERT

NEW CASE
(Diagnosis and Management)
COMBINATION SYNDROME

VERSION 1





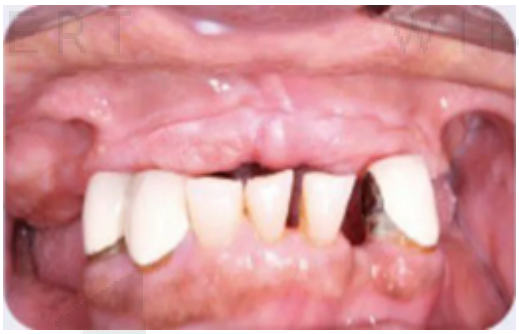
Ben, 67 years old, visits you today hoping to get a new denture. He complains of the denture fit and thus struggling to have proper meals. On examination, the upper jaw has a flabby ridge. Lower front teeth are supraerupted and possibly having grade 2 or grade 3 mobility. You also notice, it's a case of combination syndrome. Medically he is diagnosed with osteoporosis. His GP has referred him to you to get a dental clearance.

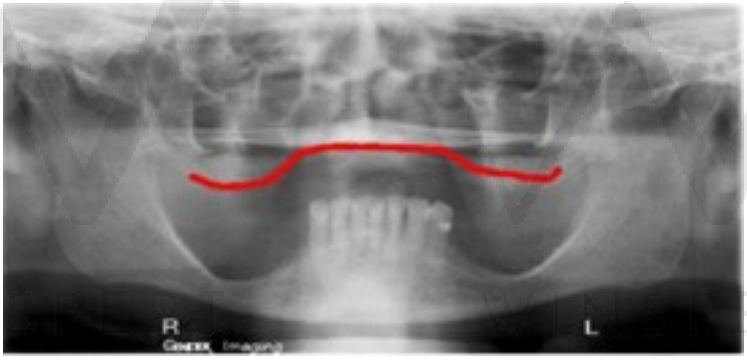
Diagnose, manage and address his concerns.

WINSPERT

NEW CASE
(Diagnosis and Management)
COMBINATION SYNDROME

VERSION 2





Ben, 67 years old, visits you today hoping to get a consultation about dentures. He complains of the denture fit and thus struggling to have proper meals. On examination, the upper jaw has a flabby ridge. Lower front teeth are supraerupted and possibly having grade 2 or grade 3 mobility. You also notice, it's a case of combination syndrome. Medically he is diagnosed with osteoporosis. His GP has referred him to you to get a dental clearance.

He is keen on getting the dental treatment done overseas.

Diagnose, manage and address his concerns.

CASE: (Version 2)

Introductory paragraph:

Ben, it must be distressing with the eating habits being affected. Can you tell me more about the denture concerns, Ben?

How long have you had upper dentures for? Did you have lower dentures? And how did the follow ups go for these dentures?

Understanding patient expectations:

Ben, I have had a look inside your mouth. Before I could explain, I want to understand your hopes and expectations regarding dentures. And what are your thoughts about the remaining teeth?

I do understand you are keen on getting the treatment done overseas. Only if you are comfortable sharing, Is there any particular reason to that?

(Explore the reasoning for overseas treatment, Is it the faith in a particular dentist? Or finances - the reason).

Explanation of findings and diagnosis:

Ben, after having a look there are a few aspects which I want to show you on the photo and x-ray taken. Can you appreciate there is an overgrowth of tissues in the front area of your top jaw along with the back area that I'm pointing at (point at the OPG over tuberosity area)?

On the x-ray, for the bottom jaw we can see at the back how the bone has lost its height. Additionally on my examination, bottom front teeth have over-erupted and have become so wobbly. These teeth don't look promising to me.

Do you have any questions so far, Ben?

With all these features present within the mouth, we term this condition as Combination syndrome.

(Combination syndrome typically arises when an edentulous maxilla opposes natural mandibular anterior teeth, leading to specific clinical features:

1. Resorption of the premaxilla.
2. Overgrowth of tuberosities.
3. Extrusion of lower anterior teeth.
4. Loss of bone under the mandibular posterior prosthesis.
5. Development of a flabby ridge in the anterior maxilla due to fibrous tissue replacing bone.)

Explanation on overseas dental treatment:

I do understand you are keen on getting the treatment done overseas. I completely respect your decision. However, as your health practitioner I would like to inform you of a few aspects governing those decisions.

Any treatment, just like our teeth, requires regular monitoring and check ups. And it's best to get the recalls with our treating dentist. Overseas treatment would necessitate regular follow ups overseas.

Overseas records are difficult to send and comprehend as well because of differences within dental practice. With such gaps, it becomes challenging to manage a patient after issues evolving within overseas treatment.

Also, dental clearance required for osteoporosis management will require you to be done from an Australian registered dentist.

Management:

Combination syndrome management:

Instability of denture is expected because of the tissue changes that happen in combination syndrome. Also the impact of osteoporosis on bone loss and its treatment, necessitates us for careful planning to enhance comfort and longevity.

Thus, a multidisciplinary approach would be required. Ideally, it would be best to refer you to a prosthodontist to make a complete management plan. As, he/she will be the best to judge the prognosis of your case.

After prosthodontist consultation, it would require some surgical aspects by an oral surgeon and also extraction of teeth by us. Also, to give you an understanding about specialists, who have higher finances and some waiting times with follow ups.

Or I can also refer you to a hospital where everything can be done under one roof, however it would involve longer appointment intervals.

There are few experienced general dentists who can manage such cases, I can also refer you to them.

Do you have any questions, so far?

Management to prevent the risk of developing MRONJ:

The remaining front mandibular teeth are not even in terms of biting surface and also are so wobbly, it would be best to extract these now rather than later when chances of development of MRONJ risk is more.

Additionally, dental fit, regular checks with the dentist and maintaining dental hygiene are very crucial which could also be a risk factor for development of MRONJ.

What are your thoughts on all of this, Ben?

I will also provide you with brochures on care with dentures, mouth and what to expect with the treatment of osteoporosis.

Key features of the case:

1. Understanding patient expectations.
2. And also their reasoning behind overseas dental treatment without being judgemental.
3. Explaining the features of combination syndrome.
4. Management of combination syndrome with a multidisciplinary approach.
5. Management and precautionary measures with respect to development of MRONJ.

Important links to read to understand this case better:

Dental tourism and cases:

https://www.teeth.org.au/overseas-dental-holidays
https://ada.org.au/policy-statement-2-2-6-elective-overseas-dental-treatment
https://ada.org.au/policy-statement-2-2-7-emergency-overseas-dental-treatment

Combination syndrome:

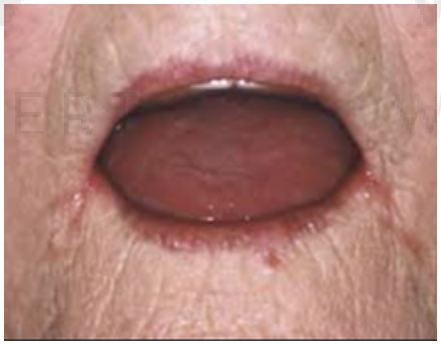
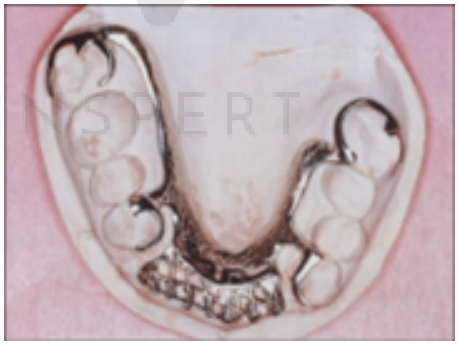
https://www.ijoprd.com/doi/pdf/10.5005/jp-journals-10019-1066

MRONJ

Read the section of MRONJ in therapeutic guidelines and watch the video explanation by Dr Jigyasa Sharma.

WINSPERT

NEW CASE
(Diagnosis and Management)
A BROKEN DENTURE CASE

William, aged 47 years, visits your clinic with the concern of a broken upper denture. He is having this metal denture for 6 months, which was delivered to him by your colleague. On examination, you notice his teeth are worn down and have reduced vertical dimension of occlusion. Patient also has angular cheilitis.

Medically he is fit and healthy.

(In the pic, the upper denture isn't broken).

Other versions: Details about the profession, angry/upset patient with your colleague, treated angular cheilitis by GP. Only teeth over the denture falling out when the patient wakes up in the morning.

Address his concerns and explain the short- and long-term management options.

CASE:

Understanding patient concerns:

William, it's not under the best circumstances you are visiting us. Can you tell me more about the nature of a broken denture? (When and how did it happen?)

How did you go immediately with the denture use? (Fit, function, comfort and aesthetics).

Was there any particular trigger for it's breakage? (Like tooth loss or major changes in the oral environment).

William, I do understand you are upset with this. I want to assure you, we will look into it's management.

Explanation of findings and additional investigations:

(According to the findings given in the scenario and photos)

After inspecting the denture:

1. Identify the site and type of break (e.g., framework fracture, clasp failure, acrylic breakage, loss of a tooth, or solder joint failure).
2. Assess the integrity of the framework (especially major and minor connectors).

Examination:

1. Assess the oral cavity.
2. Evaluate supporting teeth, soft tissues, and occlusion.
3. Check for signs of wear, tooth movement, or other prosthetic failures.)

I have had a detailed look at the broken denture. And also I happened to notice that your rest of the teeth appear worn down. Were you aware about grinding? (If not, ask if you wake up with jaw pain or muscle pain over cheeks. This could possibly have led to additional stress on the denture for it's breakage).

Explanation of findings and diagnosis:

William, regarding the denture there are different reasons for its breakage. It can be as follows:

(Classify the issue and mention it to the patient accordingly).

1. Material failure: Framework crack/fracture, clasp breakage, or tooth detachment.
2. Functional compromise: Poor fit, loss of retention, or support due to underlying changes in dentition.
3. Aesthetic compromise: Visible damage or loss of a tooth or component.

William, with the worn down teeth and the redness observed around the corners of the mouth it looks like the mouth has lost it's height, we call that as loss of vertical dimension of occlusion. Because of the infoldings of the lip, it gives rise to mixed bacterial and fungal infection.
And the redness observed around the corners of the mouth is called angular cheilitis. Angular means corner of the mouth and cheilitis means inflammation around the lips.

William, do you have any questions? Please do not hesitate to stop and ask me anything if needed.

Management and associate the relevant history:

William, you do have an option of seeing your treating dentist, prosthetist or a prosthodontist for it's repair. But, if you are comfortable, then I'm more than happy to help you.

Because the denture broke within 6 months, it could be under warranty, we need to check that with your treating dentist and the lab.

Also, I might need to take x-rays to assess the health of the teeth around and supporting structures.

Bruxism places excessive mechanical stress on the denture and supporting structures, increasing the risk of failure. Thus, our management plan should also focus on how to reduce it's effects.

Key Modifications to Management Plan:

Interim Management:

We need to focus at this stage on repair and ensure repair will be resistant to forces from grinding. However, the best person to do so is a lab technician so I need to take impressions inside the mouth with the broken denture and send it to the lab with the additional note about the possible cause for breakage.

1. We can use stronger materials (e.g., high-impact acrylic for replacing fractured acrylic parts).
2. Also, we can consider adding reinforcing wires or mesh in the repair process to strengthen the structure.
3. Remove high spots or interferences that may increase localized forces.
4. If only teeth have fallen out, curing it back again in the laboratory.

After getting the denture delivered, we will make sure to do the adjustments for your case.

(Denture repairs range from 150 AUD to 800 AUD depending on the level of adjustment).

All good so far, William?

Also, William for the redness around the corners of mouth I will prescribe you clotrimazole 1% cream topically to the angles of the mouth, twice daily for at least 14 days; continue treatment for 14 days after symptoms resolve.

Any updates to your medical history, William?

(Referral to GP for blood test to check for nutritional deficiencies).

Definitive Management:

However, William, for a more stable and holistic denture, it would be best if I refer you to either a prosthetist or a prosthodontist who is a specialist for the denture in future.

With their expertise within the field there will be some finances and also waiting times involved with them.

William, please do not hesitate if you want me to repeat anything.

Management and associate the relevant history:

Bruxism Management:

(Understand if our patient is already wearing a night guard?And also have tried management for stress reduction accordingly give advice).

William, we need to address the cause of bruxism and also prevent it's effects on the teeth or denture.

(If a patient is grinding at night: talk about wearing a mouthguard without denture, so taking an impression without dentures on).

I would recommend a custom night guard to protect the remaining teeth from grinding.

William, we need to also work on habit-breaking techniques to reduce bruxism. (Like meditation, exercise or possibly lifestyle changes. Teeth grinding could also be associated with excessive caffeine or alcohol consumption, thus reducing daily intake can help.)

Do you have any questions so far?

Long-Term Maintenance:

William, for the longevity of our teeth or replacement options, regular follow ups with dentists are very crucial.

In the appointment, we monitor wear and tear on the denture and evaluate the importance of regular adjustments to maintain fit and function. Also assessing proper cleaning and handling of the denture.

Key features of the case:

1. Understanding a patient's social factors for breakage of denture.
2. Depending on the level of denture breakage, management will differ.
3. It's best for the patient having severe grinding, to have his broken denture managed by a lab technician.
4. Overall management will include management for denture, bruxism, stress management/ addressing the cause of bruxism, and angular cheilitis if it isn't managed by GP.

Important links to read to understand this case better:

Dental tourism and cases:

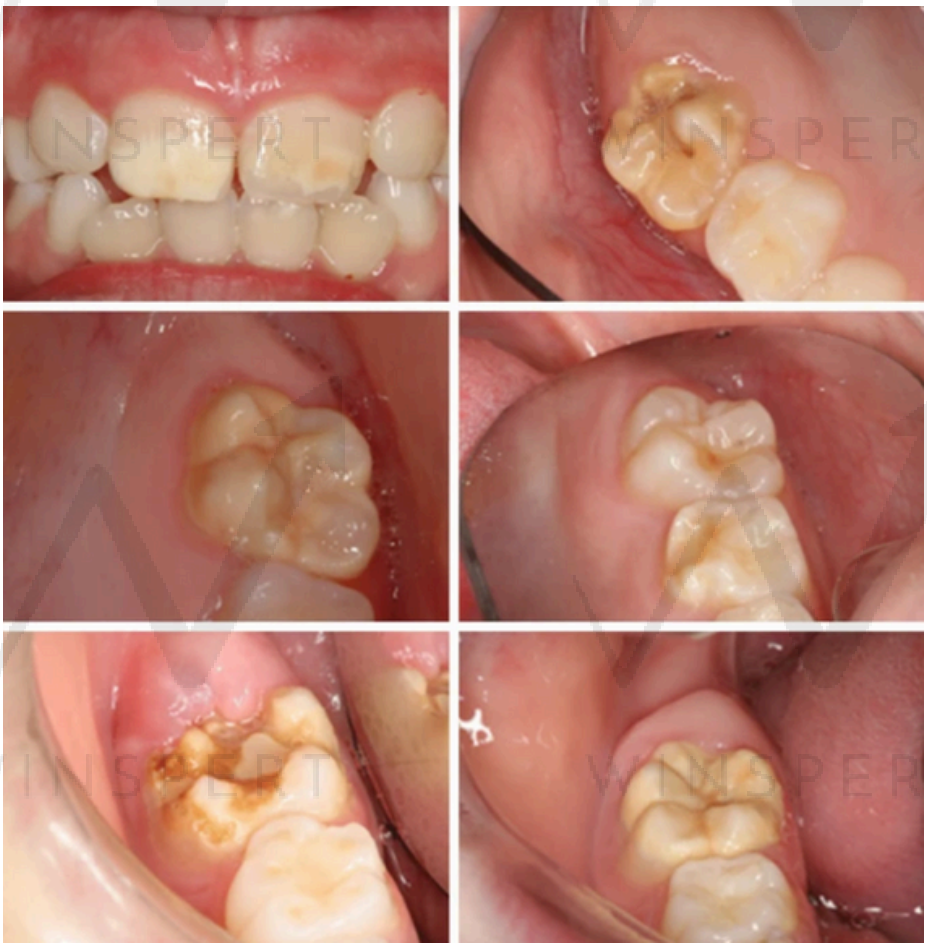
https://onlinelibrary.wiley.com/doi/10.1002/cre2.645
https://onlinelibrary.wiley.com/doi/10.1111/j.1365-2842.2004.01351.x

Attaching debonded teeth over denture:

https://pubmed.ncbi.nlm.nih.gov/17645070/
https://onlinelibrary.wiley.com/doi/10.1111/jopr.13892
https://onlinelibrary.wiley.com/doi/full/10.1111/j.1365-2842.2007.01779.x
https://onlinelibrary.wiley.com/doi/10.1111/j.1532-849X.2010.00639.x
https://onlinelibrary.wiley.com/doi/10.1111/j.1875-595X.2002.tb00592.x

WINSPERT

NEW CASE
(Diagnosis and Management)
MOLAR INCISOR HYPOMINERALISATION



Kane is an 8-year-old boy visiting your clinic for the first time, accompanied by his father. He reports experiencing sensitivity in one of his upper left back teeth for the past few days.

Upon examination, you observe decay and brown discoloration on the upper first molar. Additionally, there are some white spots on his front teeth.

Please discuss the diagnosis, address the patient's concerns, and provide appropriate management.
(Differential diagnosis may be asked)

CASE:

Introductory paragraph:

Kane's dad, I have had a detailed look, but can you explain to me how long Kane has been having symptoms? Is it bothering his eating, sleep or playing patterns?
Also, Kane's dad, how do you want me to address you?
Did he ever have any swelling over gums or over his face?
Any pain medications were given to him? And did they work?

I want to reassure you Mr..., all his symptoms will be managed.

Relevant history/ understanding risk factors for MIH:

Mr...., i noticed some very distinctive features in his mouth. But before I explain about these in detail I would like to understand more about Kane.

Medical History:

Teeth are very sensitive during it's development. During the first 2 years of life, did Kane experience any major illnesses or infections? How about when Kane's mum was pregnant with Kane?
Any allergies?

Oral hygiene history:

How does Kane take care of his teeth? (Toothbrushing, flossing, toothpaste and supervision - no need to explore each aspect now, advise while giving advice).

Social history:

How would you describe Kane's diet in terms of sugar intake and fizzy drinks?

Explanation of findings and correlation to differential diagnosis/ diagnosis:

Mr...., let me explain to you my findings by referring to the photos taken by me. (Point to the tooth having sensitivity/ in this case upper left back tooth) Can you appreciate how the structure of this particular tooth is different from the adjacent one?

Yes, this tooth is decayed because of the symptoms of pain/ sensitivity. However, it's not just this tooth in particular but also a few more back teeth and some changes appreciated on the front teeth as well.
This suggests a very peculiar condition which we call molar-incisor hypomineralisation.

Now, because of this particular condition the structure of the tooth is prone for bacteria in our mouth and also for food to stay stuck on the surfaces. Thus, combination of decay and hypomineralisation has led to this particular pain/ sensitivity.

Mr..., any questions so far? Please do not hesitate if you want me to repeat any aspects.

Management:

Mr...., before I could give an appropriate management I need to take a periapical x-ray for this particular tooth. To understand the depth of the decay and how the tooth looks below the gums, which will give us management options.

Management for molars:

Depending on the involvement of x-ray, either it will be a filling, RCT or an extraction case.
For a shallow to moderate decay we would restore with composite filling (tooth coloured filling) or glass ionomer cement (if patient is uncooperative).
For a deep decay: We will evaluate the nerve status for the tooth and accordingly decide for indirect pulp capping, RCT or extraction (if required).

Apart from extraction procedures, all other procedures would necessitate placement of stainless steel crown to prevent further deterioration of tooth structure. We would look for how he is on the chair and with the procedures. We want to make sure he is comfortable with dental settings. If he is uncooperative, we will try measures to work towards it by opting to distract him, and having closed ones nearby. However, if all these measures don't work, it would be best if he is seen by a pedodontist.
Pedodontist is a specialist for kids dental work, it's comfortable and kids friendly. However, there could be waiting times for an appointment and also specialists have higher costs.

After Kane turns 18 years old, we can consider making changes to these silver crowns depending on the esthetic concerns and the integrity of crowns.

Management of incisors:

On the front teeth specifically, these white spots represent the areas which have less mineral (hypomineralized), so applying a specific paste which helps with remineralisation. This paste contains milk proteins. Mr..., is Kane allergic to dairy?

Mr..., I will also give you written articles to read about this condition and stepwise management required.

Preventive advice and importance of follow-ups:

Mr...., to prevent further episodes of pain and maintain his teeth for long, we need to focus on following aspects:

1. Dietary Advice:

- Reduce intake of sugary and acidic foods/drinks.
- A balanced diet with calcium-rich foods.

2. Oral Hygiene:

- Proper brushing techniques using fluoride toothpaste (age-appropriate fluoride level).
- Flossing .

3. Sealants:

- Apply sealants on all first permanent molars to protect them from future decay.

4. Regular Dental Visits:

- 6-monthly check-ups to monitor his oral health and catch any issues early.

Key features of the case:

- Key features of pain to understand patient symptoms and management options associated with the tooth.
- Correlating the risk factors for MIH and caries to explain an appropriate diagnosis.
- Explain about necessary investigations before management (x-rays), which will be various ranges depending on the patient's cooperation and age.
- Preventive advice along with explaining the importance of follow ups.
- Differential diagnosis of MIH - Fluorosis, amelogenesis imperfecta, enamel hypoplasia or localised enamel hypoplasia.

Important links to read to understand this case better:

Understanding features:

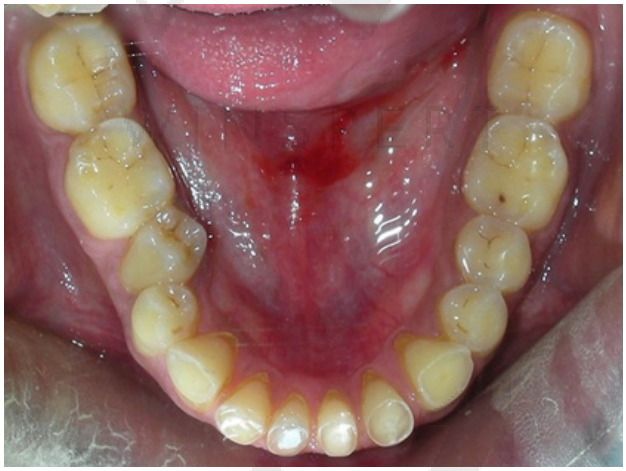
https://aapd.org.au/resources/enamel-defects/
https://jida.scholasticahq.com/article/72054.pdf
https://portal.ada.org.au/watch?videoId=643
https://www.nature.com/articles/sj.bdj.2018.814

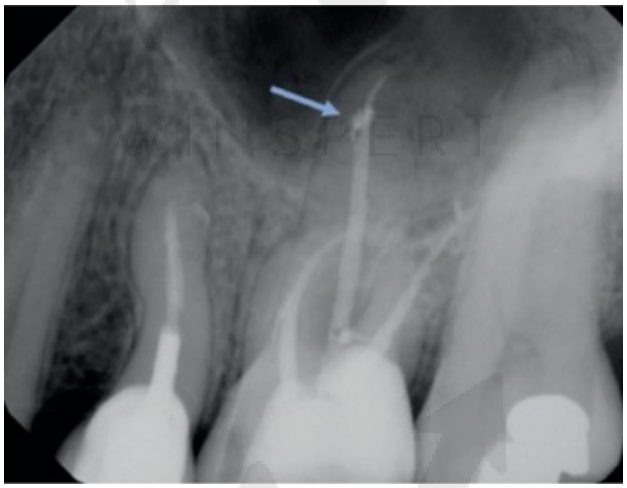
MIH and management: (Australian article)

https://www.aapd.org/globalassets/media/publications/archives/william2-28-3.pdf

WINSPERT

NEW CASE
(Diagnosis and Management)
IMPORTANCE OF SECOND OPINIONS





Cody, 46 years old, seeks consultation after receiving conflicting advice from two dentists regarding the management of the second premolar. One dentist recommended retreatment with root canal therapy (RCT) and crown lengthening, while the other advised extraction. The patient is dissatisfied with the suggestion of extraction and is considering filing a complaint.

Tooth has undergone RCT and has a crown as well.

Current PA X-ray shows a significant periapical lesion.

The patient has a history of bisphosphonate use for 5 years and is diabetic (most probably).

He exhibits attrition in the mandibular teeth and possibility of food impaction.

Discuss the advantages, risks, and potential complications of each treatment option, taking into account the patient's medical and dental history.

Another Version: External cervical resorption noted in the same premolar, a version where the premolar already has undergone crown lengthening procedure.

CASE:

Introductory paragraph:

Cody, we completely understand it must be overwhelming with different advice about the same tooth. However, I would like to assure you to help in the best possible way. Can you tell me more about the symptoms that you are experiencing with this tooth? Any swelling over the gums or on the face? Have you felt feverish?
Are the symptoms affecting your eating or sleeping patterns?

Cody, before I explain in detail, what are your thoughts on this tooth? Are you leaning towards saving this tooth?

Explanation of findings/ diagnosis:

(Depending on whether photo or x-ray is given, take reference of the same while explaining).

Cody because of your symptoms and x-ray in front of me, this tooth is showing symptoms of re-infection. We call that as secondary periapical infection.

Relevant history:

Cody, management for teeth involves a lot of factors to make sure the treatment has the best prognosis. It ranges from the body's response to finances that get involved that determine the treatment performed. Also, every dentist has their scope of practice and based on that they can provide a range of treatment options.

Dental history:

When was the RCT and crown done for this tooth? Did you experience any similar symptoms before?
How regular are you with dental check ups?

Medical History:

I noticed in our medical history form, you have mentioned having bisphosphonates since 5 years. In what form are you taking it,Cody?
And are you awaiting a blood report for your diabetes?
Any other medical conditions or medications, Cody?

Social history:

Do you happen to smoke or drink alcohol?

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Thoughts on extraction option:

Let me walk you through the extraction option first. This tooth has gone through major steps like RCT and crown (mention crown lengthening, if previously done). These steps affect the teeth's integrity and more treatment might have lower prognosis. Additionally, now this tooth has a massive re-infection which could compromise it's prognosis. Thus, investing a big amount to save a tooth that doesn't have a prognosis is a dilemma. Hence, extraction followed by a good replacement can be a thoughtful decision.
Finances could be less for extraction but, replacement option might be equally expensive.

Also, the aspect of tooth removal is majorly governed by your medical history. Bisphosphonate medication is a bone regulating drug. After the tooth is removed we want the bone to be healed, because this medication impacts the bone regulation. If there is an area of unhealed exposed bone for continuous 8 weeks, that's an issue. This is a complication called medication related osteonecrosis of the jaw (MRONJ), which has stages of pain, infection or sepsis. Because you are on this medication for 5 years, you are at higher risk of developing this complication.

In this situation, it's ideal to be seen by an oral surgeon to be very careful with tooth removal, and manage appropriately if this complication develops.

Also, questionable status of diabetes also asks us to hold onto this tooth removal, as if it's an uncontrolled diabetes, there can be areas of unhealed wounds and chances of developing infection at the tooth removal site.

Cody, it must be overwhelming with all the information. Please do not hesitate, if you want me to repeat any aspect.

Thoughts on re-RCT option: (Talk about this option if the patient is hoping to save this tooth).

Saving a tooth is always suggested by a dentist after understanding the risks and benefits. In your situation, as I explained this tooth has gone through a lot of procedures, thus the best person to analyse the prognosis would be a specialist (endodontist). I can discuss your case with an experienced colleague as well, who is proficient in performing such cases.

Because of this big re-infection happening around, this tooth could be treated surgically or traditionally. If surgical approach is needed, that would be a risk for development of medication related osteonecrosis of the jaw as well. Thus, it would be ideal to be taking an opinion from an endodontist for such a case.

An endodontist would be expensive and will have appointments spread out at longer intervals.

Cody, do you have any questions?

Your suggestion:

Which option are you more leaning towards, Cody? I will give you all the details about these procedures in writing. So, you can take your time on making informed decisions and understanding the finances associated.

Bruxism and food lodgement:

Dental history:

Also, I noticed your teeth have worn down in your bottom jaw. Are you aware if you grind your teeth? (Ask related questions, if the patient is not aware). Do you use a mouth guard?
Also, I'm suspecting because of the flattening of occlusal surfaces, you could be having a lot of food lodgement. (Explain with a diagram about how spillways are affected because of grinding and can lead to more food lodgement).

Social history:

Bruxism is associated with some triggers. Main reason in this century is stress. Do you feel lately stress has been affecting your day-to-day life? Other triggers can be frequent alcohol, smoking or caffeine consumption.

(Modify risk factors whichever are positive).

Preventive advice and follow-ups:

Cody, to prevent further such episodes and maintain your teeth for long, we need to focus on following aspects:

1. Regular dental visits:

- Professional checks and cleans to address any issues at the earliest.
- Have a balanced mouth.

2. Oral Hygiene:

- Proper brushing techniques using fluoride toothpaste (age-appropriate fluoride level).
- Flossing .

3. Stress management:

- Support with stress management either by referral or suggestions.
- Monitor its impact on bruxism.

Key features of the case:

- Understanding patient's concerns about opinions and their hopes.
- Explaining findings and explanation on re-infection/ secondary infection.
- Detailed explanation on both the options - extraction and Re-Rct along with crown lengthening. Discuss the related history with these options.
- Discussing financial consent.
- Bruxism, food lodgement and general preventive advice and importance of follow ups.
- Ultimately, the choice should be made collaboratively with the patient, emphasizing their medical risks, dental prognosis, and personal preferences.

Important links to read to understand this case better:

Endodontic treatment:

https://onlinelibrary.wiley.com/doi/10.1111/aej.12848?af=R
https://pmc.ncbi.nlm.nih.gov/articles/PMC9795975/
https://pmc.ncbi.nlm.nih.gov/articles/PMC6461161/
https://pmc.ncbi.nlm.nih.gov/articles/PMC10907570/

MRONJ:

https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/osteoporosis/special-issues/medication-related-osteonecrosis-of-the-jaw
https://australianprescriber.tg.org.au/articles/osteoporosis-treatment-and-medication-related-osteonecrosis-of-the-jaws.html
https://onlinelibrary.wiley.com/doi/10.1111/adj.13050
Read Therapeutic guidelines section on MRONJ and watch the video on app.

Bruxism:

https://health.adelaide.edu.au/arcpoh/dperu/ua/media/585/practice-sheet-bruxism.pdf
https://ada.org.au/preventing-and-treating-bruxism