WINSPERT

OSCE CASES

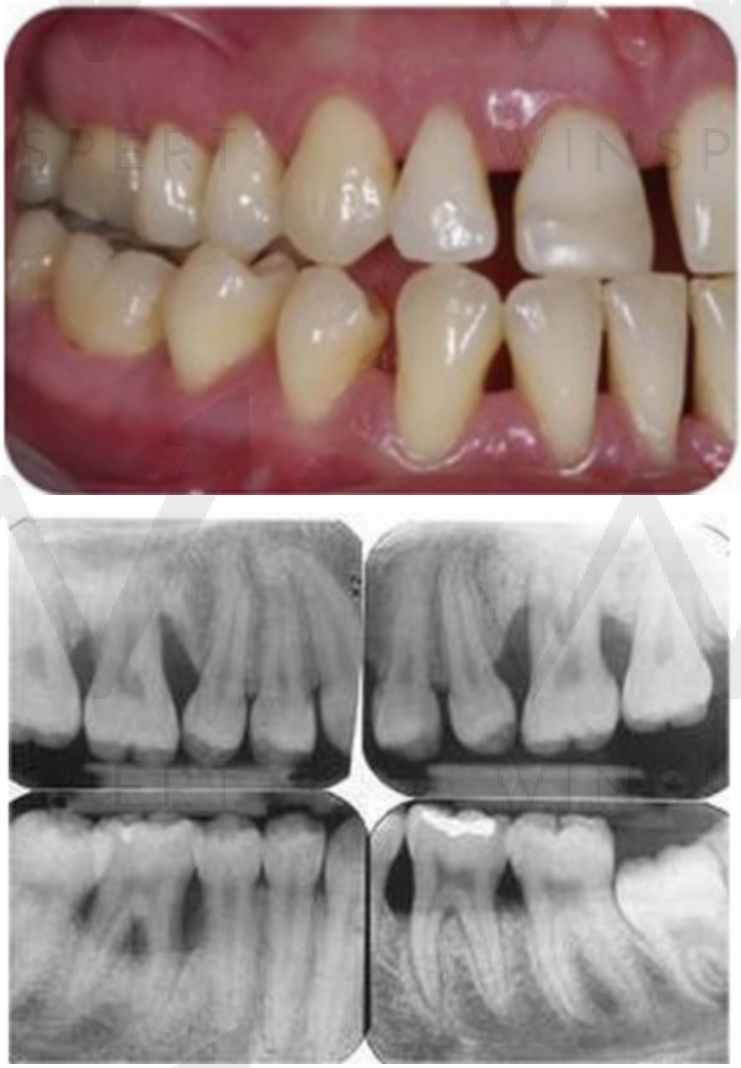
YELLOW SET

WINSPERT

YELLOW SET: CLUSTER 1

(Clinical Information Gathering)

PATIENT WITH PERIODONTITIS WANTS ORTHODONTIC TREATMENT CASE



Jordan, a 17 year old, is visiting your clinic today for a consultation about his teeth. He saw a dentist three months ago and has transferred his records. The previous dentist did the examination and sent the CPITN score, which is 444/424. He also did the bitewing x-rays that showed bone loss around his molars.

Consult the patient and discuss records by the previous dentist.

CASE:

Opening remarks/ introduction:

Greet the patient, introduce yourself as you haven't examined the patient in this scenario.
Hi Jordan, my name is Dr. ABC and I will be looking after you today. I notice a few records have been transferred. Thank you for that, so tell me about your concerns.

Exploring the chief complaint:

Talk about his concerns (it could be spacing, crowding or not happy with his own smile) How is it affecting your day-to-day life?

Any sensitivity with your teeth? Bleeding? Wobbly teeth? Puffiness around gums? Any pus noticed?

(Also, chances of a patient being bullied at school or by peers because of teeth in a particular way - I'm sorry for you to experience this Jordan. However, help is always out there. Have you considered talking to school authorities? If you are not comfortable there are government provisions for the same, I will help you with the support. I want you to remember you are not alone, okay Jordan?).

Discussing the records:

Jordan, I'm more than happy to help you, however, the transferred records caught my attention. After the previous dentist's examination, it shows that you have gum depths which are not ideal and the x-rays show significant bone loss, both are really concerning for your age. (Explain the CPITN score and how these scores are preferably managed with periodontists).

I understand teeth alignment is your top priority but teeth take support from the bone and the gums. And this foundation needs to be stable to consider changes with the teeth alignment. (Can explain with the diagram here).

I will perform my set of examinations as well for you and is it okay if I ask you a few relevant questions?

Relevant history and explanation of risk factors:

1. **Dental history**

   How often do you visit the dentist ? Have you had major dental treatments done in the past?

2. **Oral hygiene habits**

   How do you look after your teeth? Do you use anything to clean in between teeth? What toothbrush do you use?

3 Medical history

How is your general health, Jordan? When was the last time you visited a GP or had a blood test done?

- Any medical conditions I should be aware of?
- Any medications? Do you have any allergies?

4 Family history

Do you know if anyone in the family has gum disease? Or history of early tooth loss in the family?

5 Social history

Now Jordan, just between you and me (this information will be just in this room), I know yours is not a legal age yet, but do you happen to consume alcohol or smoke at all?

- (I understand because of peer pressure, you could be leaning to such habits?)

Risk factors and its relevance:

Based on patient's answers to previous questions we will explain him:
Gum and bone disease which we call periodontal disease could take a few years to develop or can happen in a shorter span depending on several factors.

Our health of the mouth is a reflection of general health like it's a double edged sword.

Jordan, gum disease could be because of interplay of several individual factors or an outcome of genetic systemically involving factors. As from your answers to my question, I believe gum and bone disease is most likely due to the second reason in your case. Because looking at your age and the involvement of your gums and bone, we need to consider your medical condition or genetics to be responsible.

So, the most important step for us is to get to know your blood profile with your GP and then referral to a periodontist as he/she would be the best person to understand and manage your condition.

And once we get a green signal from GP and periodontist, we can look into alignment options. How does it sound?

I can explain in detail about the factors playing important role in the health of gums and bone disease, if you want to know more:

Primary factors: Bacteria (Through oral hygiene habits)

Secondary factors:
Localized (crowding, spacing, or use of inappropriate dental aids).
Systemic (Underlying medical condition)

Modifiers - Genetic transmission, stress (psychological aspects).

Investigations:

For today, how about I perform my set of examinations. Starting with the external aspect of your face and inside the mouth a thorough look.
Followed by detailed gum depth measurements.
(If OPG is not given) Take an OPG, to get an overview of all the teeth and bone depths.

Important links to read to understand this case better:

Bullying:

https://bullyingnoway.gov.au/
https://kidshelpline.com.au/ h
ttps://headspace.org.au/online-and-phone-support/

CPITN or PSR:

https://www.bsperio.org.uk/assets/downloads/BSP_BPE_Guidelines_2019.pdf

Periodontitis in children or adolescents:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4098882/

Risk factors for periodontitis:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1351013/

Talk about sensitive topic like alcohol or drug use in teenagers:

https://cdn.adf.org.au/media/documents/ADF_MINI_BULLN_Youth_AOD-for_parents-web.pdf

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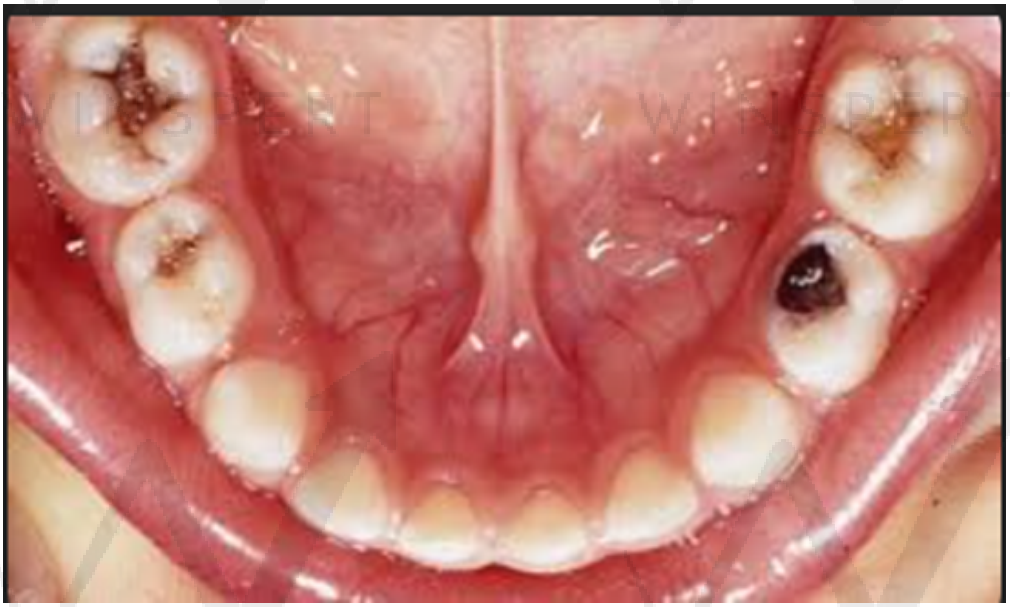
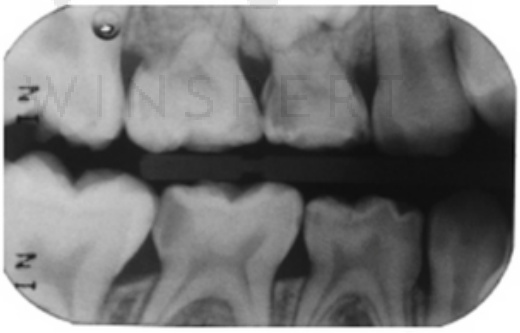
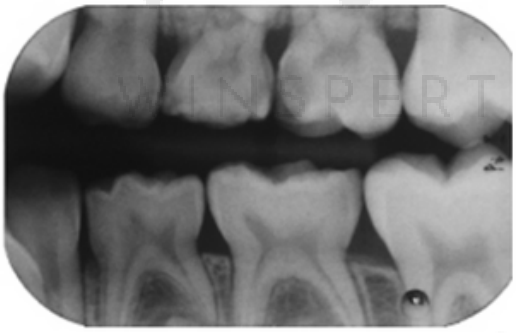
YELLOW SET: CLUSTER 1

(Clinical Information Gathering)

PATIENT HAS MULTIPLE BROWN SPOTS ON TEETH AND DAD IS WORRIED (VERSION 1)







Mehmat Khan, an 8 year old boy accompanied by his mother, comes to the clinic. His mother is worried about black holes and secondary teeth. No continuous pain experienced, has little discomfort on food lodgement. You did an examination and took 2 bitewing x-rays.

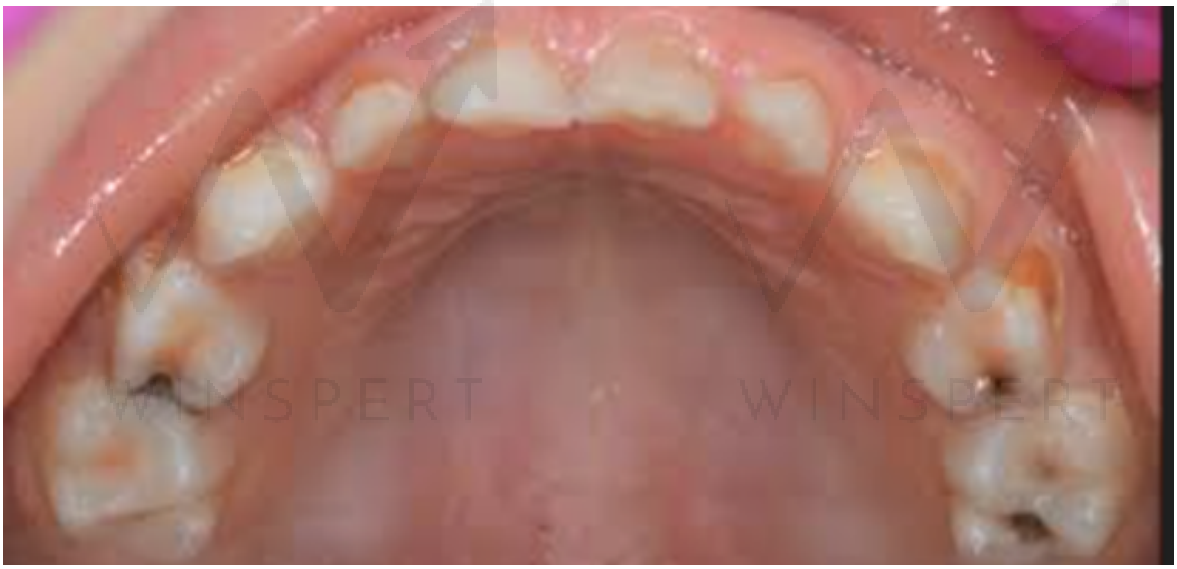
Evaluate radiographic features and investigate.

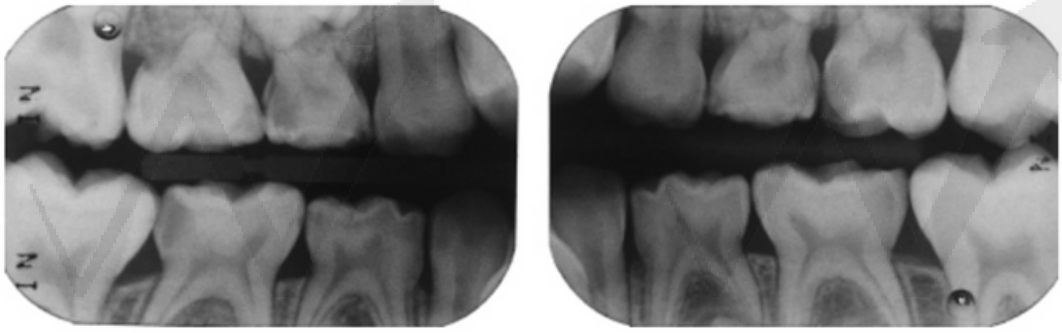
WINSPERT

YELLOW SET: CLUSTER 1

(Clinical Information Gathering)

PATIENT HAS MULTIPLE BROWN SPOTS ON TEETH AND DAD IS WORRIED (VERSION 2)





Mustafa Khan, an 8 year old boy accompanied by his single dad. His father is worried about the black spots on the back molars. He does not have any symptoms. You did the examination and two bitewings. Mustafa has asthma and uses an inhaler. Address patient concerns and investigate.

Consult with dad about caries risk assessment.

CASE:

Opening remarks/ introduction:

Hello Mr./Mrs. Khan I see you are here because of concerns with black spots on Mehmat's teeth. (Is it okay if I address you as Mr./Mrs. Khan?) Tell me more about your concerns.
Seeing your child with this, it must be hard, and I can sense your concerns. To help you out best, is it okay, if I ask you related questions?

Exploring the chief complaint:

When did you first notice the black spots?
Did Mehmat/Mustafa ever complain about it ?
Does he have any pain or experienced in the past?
Any discomfort when chewing food? (Ask this if history of no symptoms is not given, if given, then state it as its good he does not have any discomfort).
Did you notice any changes in his behaviour with respect to eating, sleeping or playing?
Did you notice any redness or puffiness around the tooth or on his face?

If pain is present ask the following questions:

Site

- "Where is the pain?"
- "Can you point to the tooth or area in question?"

Onset

- "When did the pain start?"
- "Did it come on suddenly or gradually?"

Character

- "Did you notice any change in Mustafa's/ Mehmat's routine habits?" (e.g. unable to sleep well, eat well or play)
- "Is the pain constant or does it come and go?"

Radiation

- "Does the pain spread elsewhere?"

Associations

- "Are there any other symptoms that seem associated with the pain?" (e.g. bad taste, fever)

Exacerbating or relieving factors

- "Have you noticed, does anything make the pain better?" (e.g. analgesics)
- "Have you noticed, does anything make it worse or trigger it?" (e.g. cold, touch, bending, lying down)

Relevant history and explanation of risk factors:

1 Dental history

How often does he visit the dentist? When was the last time he visited and what was it for?
(Educate about the visits to dentist and how vital it is)

2 Oral hygiene habits

What is Mehmat's/Mustafa's oral hygiene routine?
Do you supervise him?
What toothpaste does he use?
Does he use anything to clean in between teeth?

3 Medical history

How is his general health?
If asthma is given, ask what is the medication in his inhaler?
How is his asthma? Is it under control?
Any other medications?
Any allergies that I should be aware of?

4 Social history

How is his water intake?
What does his diet consist of? And how often does he consume meals?

Correlation of risk factors with black spots:

Depending on patient's answers to the above questions, you will try to correlate:

Black spots are a form of dental caries also called cavities. Dental decay is a cumulative disease involving a series of processes. Primary factors responsible are bacteria in the mouth, sugar, time it's stuck on tooth structure, poor oral hygiene habits and quality of saliva. Moreover, acids can hasten the process of damage on the tooth. Additionally, Mehmat's medication is responsible for dryness of the mouth thus reducing the quantity of saliva required to flush.
To sum up for Mehmat, we can see (add the factors that are positive), these could be possibly contributing to decay.

Mr. Khan, I understand you want to improve his condition, I appreciate your efforts to get him to us early and now we all can work as a team to improve his oral health. I will provide you with some brochures too for better understanding of tooth friendly foods and habits. And regular check ups with me will make everything better.
I will formulate a plan for him after having a thorough look.

Health promotion:

Let me explain what is the best for teeth. I use a mnemonic for FOWL (fibrous food, oral hygiene habits, more water, Less frequency of eating) , it's because there's too much information, also I will provide some brochures about the same.

Investigations:

To begin with, I will check outside of the mouth to appreciate any swelling or change in face profile and inside the mouth I will check all the teeth and the surrounding gums.
I will carefully look at the teeth with black spots.
Also I will use my calibrated instrument to check all the teeth and the gums.
And to understand his food habits the best, can I get a diet chart detailing about 2 week days and 2 days of the weekend. You can get it next week and we will discuss it in detail.

Important links to read to understand this case better:

Understanding dental decay:

https://www.teeth.org.au/search
https://teeth.org.au/translated-factsheets

Advice on diet for children:

https://www.teeth.org.au/watch-your-mouth-podcast/paediatric-dietician-advice-on-food-drink-for-infants-and-children

Health promotion topics:

https://teeth.org.au/brushing-teeth
https://teeth.org.au/dental-fluoride
https://teeth.org.au/dental-care-for-kids
https://teeth.org.au/kids-toothbrushing-apps

Effect of asthma and its medication on caries:

https://www.teeth.org.au/asthma
National Asthma Council Australia - National Asthma Council Australia

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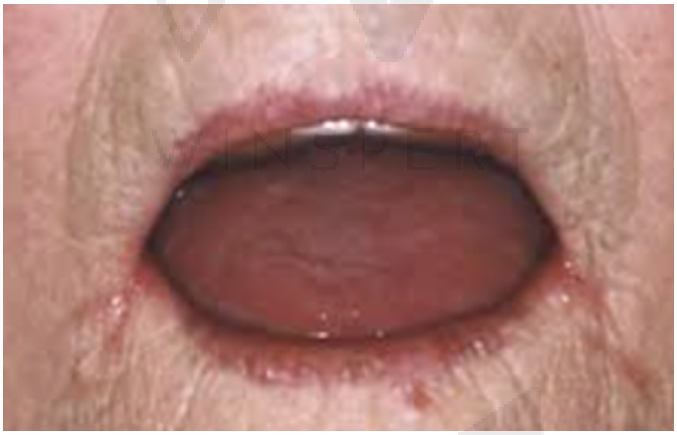
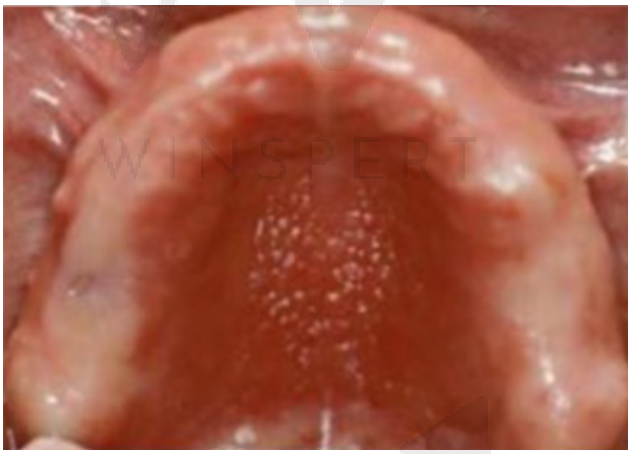
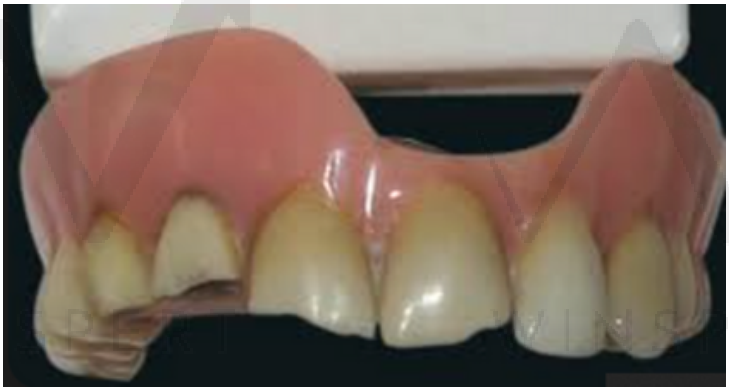
YELLOW SET: CLUSTER 2

(Diagnosis and Management)

DENTURE STOMATITIS (VERSION 1)







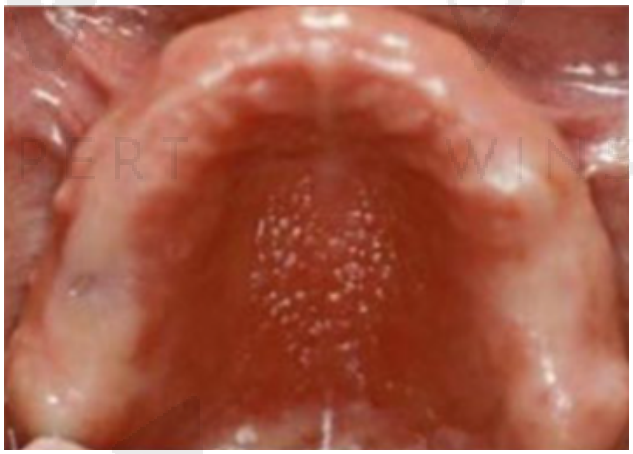
Mrs. Lin, a 68-year-old woman, has been wearing an upper denture for 28 years, with her current denture being 15 years old. She reported a poorly fitting denture that falls out during yawning and eating. She has a few teeth remaining in her lower jaw but does not wear a lower denture.

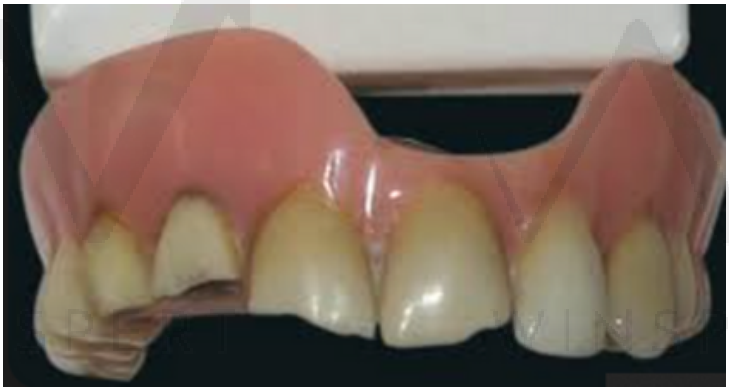
She also experiences soreness on the corners of the mouth.

Upon examination, you observed a red, inflamed palate, an irregular upper denture with a broken buccal flange, and worn-out teeth.

Provide differential diagnoses for her issues and address her concerns with an appropriate management plan.

YELLOW SET: CLUSTER 2
(Diagnosis and Management)
DENTURE STOMATITIS (VERSION 2)





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Upon examination, you observed a red, inflamed palate, an irregular upper denture with a broken buccal flange, and worn-out teeth.

Provide differential diagnoses for her issues and address her concerns with an appropriate management plan.

CASE:

Opening remarks/ introduction:

Mrs Lin, I see you are here for the concerns regarding denture, so tell me more about those. And it's affecting your eating too, that must be frustrating, how are you managing your diet?
I can certainly help you with your concerns, however you are having soreness around the corners of your mouth too, your denture issues could be related to this concern too, so is that okay if I ask you a few relevant questions?

Relevant history and explanation of risk factors:

1 Medical history

Medically how are you keeping Mrs Lin? Any medical conditions or medications that I should be aware of? When was the last time you went to your GP? Have any blood tests been done recently?

2 Dental habits

You mentioned your denture is 15 years old and never used lower dentures. Ideally, the expectancy of a denture is between 5-10 years, maximum extent to 15 years. Dentures are static in nature and our jaw bones are dynamic. You could imagine a constant force over a period of 15 years could have led to more than few changes and thus your dentures are ill-fitting. Also what is your routine in terms of maintaining denture hygiene? What do you use to clean your dentures? How often do you visit dentists for denture follow-up or regular visits?

3 Social History

Do you smoke at all or have you smoked in the past?

Promote health in terms of visiting dentists regularly and GP (specially after 50 years of age), also promote with respect to smoking cessation.

Explanation of diagnosis:

Thank you for your patience with my questions Mrs Lin. From my examination, and your answers I'm suspecting the changes of the roof of your mouth is what we call as denture stomatitis. As you mentioned, you have been reluctant to take your dentures out at night, the constant irritation of dentures on our mouth can have effects like this. It could also be a sign of suboptimal denture hygiene.

Additionally, you mentioned the soreness on the corners of your mouth, this could be because of several reasons, we call it angular cheilitis. Possibly because of nutritional deficiencies, manifestation of a systemic granulomatous disease, imbalance of mouth height or mixed bacterial and fungal infection.

Are you with me so far, Mrs Lin? Do you want me to repeat anything at all?

Management:

With the condition of the roof of your mouth, it will need rest and thus it's advisable to not wear dentures for a minimum of 1 month and optimise the denture hygiene. I can go through the steps with you if you like and also provide you a detailed brochure for reference at home.

To manage your concerns today, the upper denture is loose and broken too. So, with your worn out teeth and broken portion, it would be best we make a new set for you as it's been more than 15 years. Do you think that is something you will consider? In a way your roof of the mouth will get rest too.

Or we can reline the denture. It is a procedure, where we make a new base for the denture to rest on the changes within the jaw. This is not recommended for your case but we can consider it temporarily. We can do it with a tissue conditioner, which aids with the inflammation of the roof of the mouth.

And for the soreness that you are experiencing on the corners of your mouth, I can prescribe you a numbing or soothing agent (1% benzydamine gel). But, we need to understand the cause of it. So, I will give you a referral to a GP to understand your blood profile with a blood test. Also, in the meantime, do you think you want to consider replacing the missing teeth areas with a denture, if we are making a new one for your upper jaw?

And, if we are making dentures for both upper and lower jaw, it is something out of my scope, I will have to refer you to a prosthodontist (denture specialist), who can best manage your case. What are your thoughts on this Mrs. Lin?

(There is an option to make the dentures quickly by involving digital dentistry in the fabrication of dentures)

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Important links to read to understand this case better:

Denture care and life expectancy:

https://www.agedcaredentistry.com.au/how-long-do-dentures-last/
https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/dentures

Angular cheilitis:

https://www.ncbi.nlm.nih.gov/books/NBK536929/

Denture stomatitis:

https://exodontia.info/denture-stomatitis/

Management of denture stomatitis and angular cheilitis:

Only from therapeutic guidelines.

Relining procedure:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5903182/

Ageing and Dental Care:

https://www.aihw.gov.au/getmedia/96ff0700-9799-4e06-a712-8618be0c882d/aging_dental_health-a.pdf.aspx?inline=true

Digital Dentures:

Understanding Digital Dentures: A Comprehensive Guide by Denture Haus

The Ultimate Dentist's Guide to Digital Dentures | Avant Dental

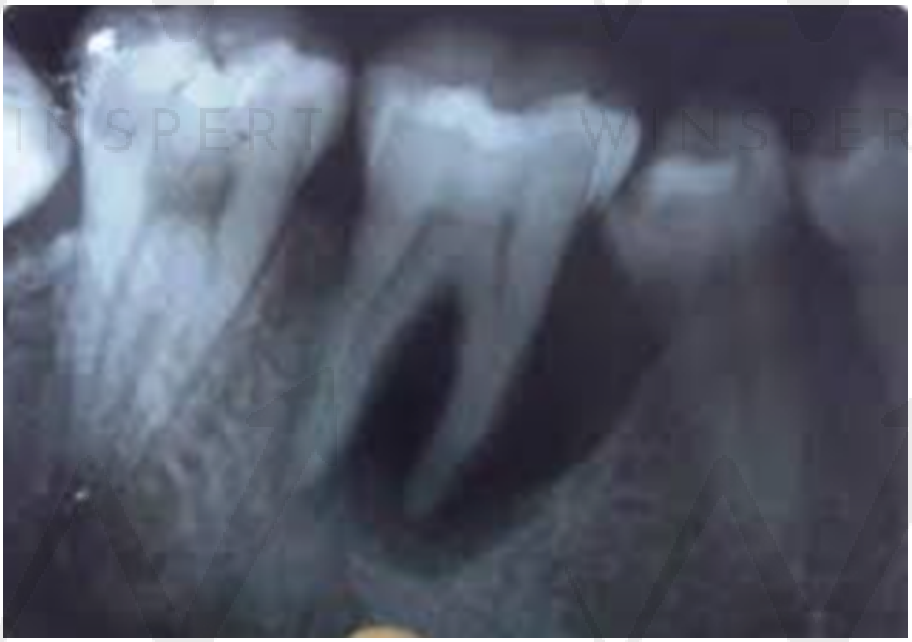
Digital Dentures: Common Misconceptions and FAQs | Avant Dental

WINSPERT

YELLOW SET: CLUSTER 2

(Diagnosis and Management)

PATIENT WITH ABSCESS, M/H OF WARFARIN AND BISPHOSPHONATE.



David Arthur, a 67-year-old patient, visited your clinic today with complaints of swelling and tooth mobility in the lower right side. After examination, you observed that the lower right first molar is vital but has grade 3 mobility and an associated abscess.

David has a medical history of myocardial infarction. He is currently managing hypertension with atenolol and verapamil. He is also taking warfarin. He has hypothyroidism, for which he takes thyroxine, and osteoporosis, for which he recently received a denosumab IM injection two days ago. He tried Panadeine Forte for pain relief, but it was ineffective.

He recently did INR - the reading was 2.2

Address David's concerns regarding the swelling and mobility of tooth 46 and develop an appropriate management plan.

CASE:

Opening remarks or exploring the Chief complaint:

Mr. Arthur, I'm so sorry to see you in this situation. I want to help you in the best possible way, so tell me more about this experience of yours. Have you eaten anything and are you well hydrated since the last 24 hours?
I have had a look inside your mouth, the good news is that the tooth is alive however the support of the tooth is compromised. How long have you had swelling in this area? Do you think it's increasing in size? Do you get a bad taste in your mouth? Have you noticed pus coming from that area? Any similar experiences in the past?
Before I give you a thorough explanation I want to understand a few conditions from your medical history. If that's okay with you?

Relevant history and explanation of risk factors:

1 Medical history

How long have you been taking Denosumab for? How are your GP follow ups going with respect to your myocardial infarction, hypothyroidism, hypertension and osteoporosis?
Thank you for the update with the INR test, however we may need the latest INR test done in the last 24 hours.
Did your GP update you in your recent visit?

2 Dental habits

When was your last dental visit?

3 Oral hygiene

What is your routine for your oral hygiene? Do you use any aids to clean in between your teeth?

4 Social History

Do you smoke or have you smoked in the past? (if yes, how many years?)

Diagnosis:

David, the reason for all these questions is there could be interplay between these factors to be responsible for your swelling.

Also, it helped me to come to a diagnosis which appears to be a periodontal abscess. Have you heard about this before?

It's a compromised support of the tooth because (insert all the positive risk factors) of the risk factors involved in your case.

Correlation of risk factors and its modification:

Hypothyroidism has an impact because of thyroid levels on the tooth support. Osteoporosis affects lower jaw bone to some extent. Additionally our own efforts could also affect the health of periodontium (which is the support of teeth). All in all systemic and local factors are crucial for this to occur.

Do the health promotion of modifiable factors after explaining the correlation.

Management:

To best help you today, I have to be cautious of risks involved with your medical history. Active treatment is something I have to hold onto, as you are taking denosumab and because of periodontal abscess you are at risk of developing medication related osteonecrosis of the jaw. Where, the support bone can die and lose its potential to heal. Additionally you have taken the dose 2 days ago, increasing the risk of complications. Thus, the best idea would be to be seen by a periodontist, who knows to manage any complications that may arise while treating you.
Thyroxine and warfarin when taken together sensitise an individual to accentuate effects of warfarin and increase the risk of bleeding. Thus, limiting our options of extraction or incision and drainage.

Thus, I would do a minimal intervention today by gently pressing over the swelling and try to ooze out the pus as much as I could. I will also superficially clean the area with my instrument for any irritants.
What are your thoughts David?

Also, I will prescribe you pain killer as the one you are taking is not effective, also is associated with more side effects. Any allergies or reactions to the medications in the past, David? (Depending on the answer you can prescribe)

You can take:
Ibuprofen 400 mg 6-8 hourly (3 times a day)
Panadol 1000mg 4-6 hourly (4 times a day)
Take both these medications until pain subsides, but no more than 5 days.

I will call up the specialist and look for an earliest appointment for you, if it's not available then I will give you details of the hospital. There would be waiting time there, but hoping you get managed in less than 24 hours.

(If patient says, i don't think I can go to hospital or specialist is not available for 24 hours, you can prescribe him antibiotics as follows:
Amoxicillin 500mg 8 hourly for 5 days.
Metronidazole 400mg 12 hourly for 5 days. (Always with the prescription of metronidazole - ask if the patient consumes alcohol? Because of the risk of disulfiram reaction).

Always ask at the end, are you okay David? Do you want me to repeat any information at all?

Important links to read to understand this case better:

Periodontal abscess:

https://www.ncbi.nlm.nih.gov/books/NBK560625/#:~:text=A%20periodontal%20abscess%20is%20described,tissues%20and%20depicting%20clear%20symptoms.

Warfarin and thyroxine interaction:

https://www.drugs.com/drug-interactions/coumadin-with-levothyroxine-2311-1529-1463-0.html

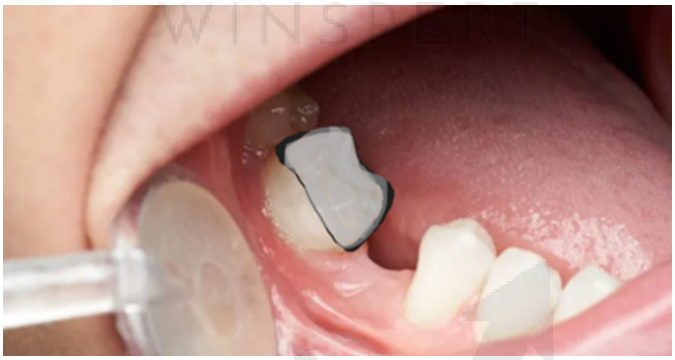
Hypothyroidism and its effect on periodontium:

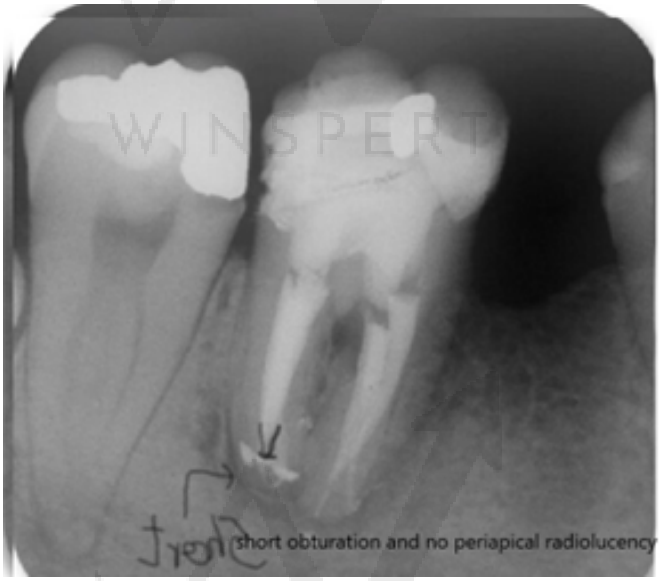
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7025985/

Management:

Read Therapeutic Guidelines.

YELLOW SET: CLUSTER 3
(Clinical Treatment and Evaluation)
GAP PRESENT BECAUSE OF MISSING TOOTH





Mr. Ken, a 73-year-old regular patient at our clinic, is here today for his routine check-up and cleaning, his last one being a year ago. After completing the examination, you inform him that he has no new cavities and his gums are in good health. Mr. Ken inquires about replacement options for the gap between teeth 44 and 46, which have been present since around 10-15 years. You have taken a photograph and a bitewing X-ray, which show that the gap appears normal, with tooth 46 having a metal cap.

Medically he is fit, takes medications for his hypertension.
Periapical x ray was also taken RCT was done with 46 and shows short obturation with the distal root with no periapical radiolucency.

Address Mr. Ken's concerns and discuss the potential replacement options available.

CASE:

Opening paragraph:

Mr. Ken, it's so nice to see you again for your regular check ups. I have had a thorough look inside your mouth and nothing has changed since the last time. So, the good news is no cavities are present and the gums look healthy. So keep up with the great job Mr. Ken.
And I noticed, you have some questions with the space present in your lower right jaw. Do you have anything in mind with respect to this gap? Since, how long have you had this gap?
Any expectations from today's appointment? And in terms of finances involved for replacement what range are you thinking about?

Thank you Mr. Ken for guiding me, to help you best today. Will you be okay to discuss a few more questions to narrow down options to what suits you best?

Relevant history and explanation of risk factors:

1 Medical history

Mr. Ken, any updates in your medical history since the last time we met? Any medications other than you take for your hypertension?

2 Dental habits

You are amazing with your regular visits to the dentist and keep up with that as the replacement needs a follow up too. Also, the way you are looking after teeth, we need to keep up with the similar job for replacement too.
How long was the root canal treatment done for this tooth at the back? And have experienced any issues with that tooth all this time?

3 Social History

Do you recall if you grind your teeth at all? Do you smoke Mr. Ken? And how about alcohol consumption?

Treatment and evaluation:

Thank you Mr. Ken for your patience, now let's walk you through the options of replacement for that gap. (In the exam, depending on the patient's preference you will begin with the options).

Mr. Ken, you also have an option of no treatment. However, with the gap all the adjacent or opposing teeth try to move towards it over a period of time and thus reducing the space for replacement.

There are many reasons why you should replace missing teeth: (optional to say this, if patient is reluctant for any replacement)You may not like how the gap looks when you smile.

- Missing teeth will affect the way you speak.
- When a tooth is lost and not replaced, the remaining teeth can shift.
- Bone loss can occur around the missing tooth. This may cause the remaining teeth to become loose over time.
- Loss of teeth and bone can make your face muscles sag.

Let's talk about implants, they can replace a single tooth best and are surgically placed in the jaw bone. They are the most effective yet expensive replacement option. Also, several considerable factors like medical fit, dental hygiene, gum health and also bone quality decide whether we are the right candidate or not. In your case, I feel you are the right candidate. However, implants are not done by me. It will be done by an experienced colleague of mine or specialist and thus treating practitioner would be the best judge. Bone quality is judged by a special 3D scan done by a specialist. Are you following Mr. Ken, any questions at all?

The other option is fixed bridges which could be a traditional bridge or a cantilever bridge. Let me explain each option in detail for you to understand the difference.
Traditional dental bridge takes support from both the adjacent teeth, let's look at the diagram to visualise best. Advantages are stability and good replacement. But, drawbacks are it will be invasive and on a costlier end. But, in your situation one tooth at the front tooth is looking good, but the one at the back has root canal treatment done. The good news is you haven't experienced any issues in the past, however, the filling in the root is short of ideal length. There are possibilities of you experiencing pain with that tooth, so the best person to judge that would be an endodontist, specialist to do RCTs.
Any questions so far ?
Now with a cantilever bridge, it takes support just from one tooth. So, taking support from the back tooth is ideal however it's already been compromised with the RCT and thus, not the best option. And taking the support from the front tooth would put a lot of pressure on the bridge thus not lasting for long.
(Explain each option with the diagram).

For a removable option, I could think of valplast. It is made of acrylic completely and looks something like this (shown on a diagram). The advantage is you can take it off and easily put it back, looks natural, cost effective but the process could be tedious for few of putting it back and taking it out. It will not be as stable as fixed options and it's used as a temporary measure several times.

What are your thoughts on this Mr. Ken?

Also, these are the options given by me that surround my scope of practice. If you do not feel satisfied with options, you do not have to decide right now, I will give you more written information to know in detail about each option. Also, you can always get a second opinion.

Important links to read to understand this case better:

Dental implant:

https://www.teeth.org.au/dental-implants#:~:text=Dental%20implants%20are%20used%20to%20replace%20missing%20teeth.,discuss%20these%20thoroughly%20with%20you.

Valplast:

https://www.valplast.com/patients-1

Tooth replacement options explained very well:

https://pashadental.com/resource/tooth-replacement-options/

https://www.teeth.org.au/dental-implants

https://www.teeth.org.au/dentures

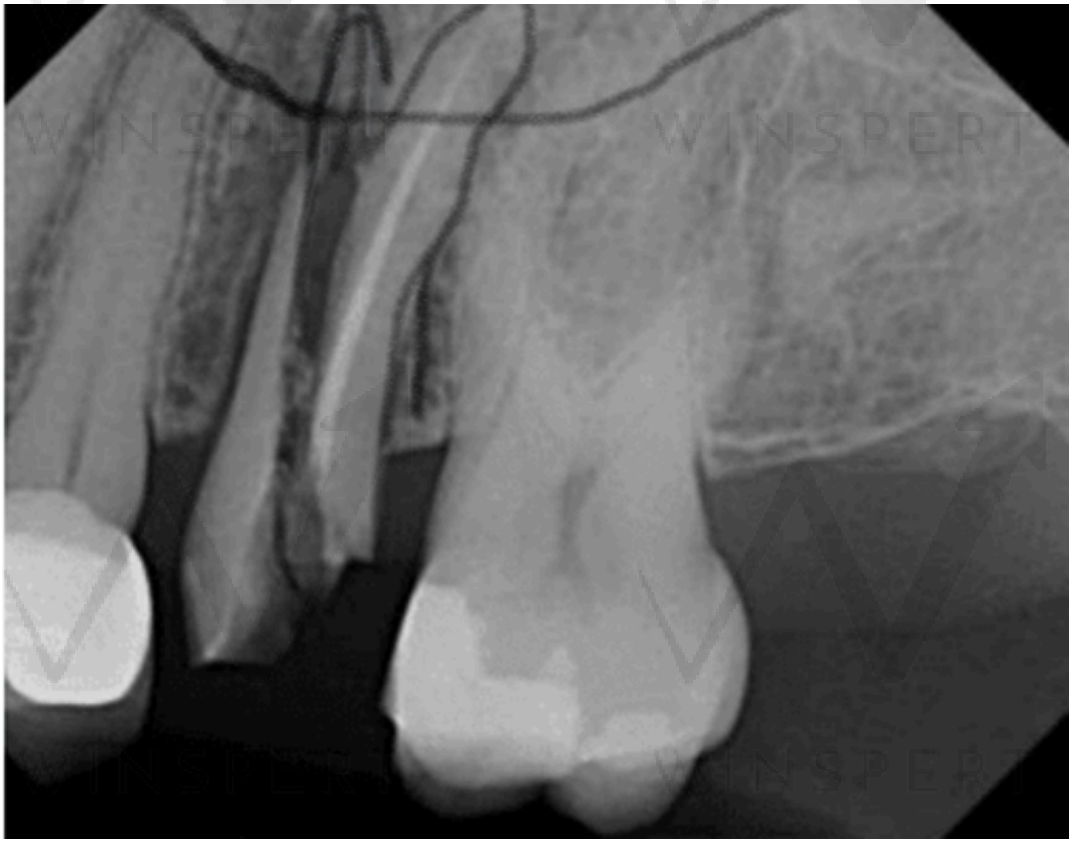
https://www.teeth.org.au/crowns-bridges-and-veneers

WINSPERT

YELLOW SET: CLUSTER 3

(Clinical Treatment and Evaluation)

CROWN BROKE DURING EXTRACTION



Mr. Singh, a 52-year-old patient, visited your clinic today with complaints of pain and swelling near his ear. He travelled two hours to reach your clinic on a friday afternoon. Upon examination, you found that tooth 16 is severely decayed and irreparable.

You decide to perform extraction and gain informed consent. During the extraction attempt, the crown broke at the gum level, leaving all three roots in the socket. His medical history is clear.

Inform Mr. Singh about the situation, address his concerns, and explain the next steps in his treatment.

CASE:

Opening remarks:

Mr. Singh, I will get you to bite down on this gauze piece and I will sit you upright. Are you okay?
Mr. Singh, as we had discussed this was a complex tooth removal, good news is it is still manageable however, only part of the tooth has come and the rest is still inside being broken at the gum level.
I want to assure you, it is manageable and we will be taking you out of this painful and swelling situation. I understand it must not be easy for you to hear this, I will explain all the following procedures in detail, but for now do you have any questions for me, please feel free to ask?

Management steps:

To begin with, I will take a periapical x-ray to understand what level has the tooth broken and how much is left inside. X-rays are a 2-D representation of a 3-D structure, so it will not be accurate but I will get an idea.

The next step is I will understand the position of roots in comparison to the anatomical structure present near to it, which we call as maxillary sinus. Let me explain to you with the help of x-ray taken here. Can you appreciate this dark shadow, that is what I'm talking about. Now, there are few risks involved, however taking you out of the painful and infectious stage is our priority

I want to be aware of the risks, which are while trying to take the rest of the tooth out, landing into the complication of developing a communication between the sinus and mouth because they are overlapping on the structure. And in a few situations if manipulated in a certain way, root pieces can further break and land inside the sinus.
Now, I want you to be assured, each complication is manageable however out my scope of practice.

So, to look out for the best for you, I would want the rest of the tooth removal process to be seen by either an experienced colleague of mine or by the oral surgeon, who can have waiting times and there would be more finances involved. What are your thoughts Mr. Singh?

(Continued on next page)

What concerns me the most is it's friday afternoon, so the chances of you being seen by a specialist is less. Let me make a few calls and arrange the best for you, as you have travelled all the way for 2 hours. But, I would also like to update you that the Victorian government has made provisions for people travelling more than 100 kms for a specialist treatment, their fees could be waived off either completely or partially. Moreover, you can claim accommodation and the travel fees. I will send you a link for you to apply or have a look. If we cannot arrange anyone for you in the next 24 hours, I will prescribe you antibiotics and painkillers. Before that, any allergies or reactions to medication in the past that I should be aware of?
(Amoxicillin 500mg 8 hourly for no more than 5 days + Metronidazole 400mg 12 hourly for no more than 5 days)

As the swelling is involved near the ear area, we do not want it to spread and increase in size, but if that happens and you feel unable to eat, breathe, swallow and close eyelids. Please call an ambulance at 000, as medical supervision is vital here to avoid medical emergencies.

Are you alright, Mr. Singh?

In the meantime while we make a few arrangements for you, do you want me to give a set of instructions as we have had partial tooth removed.
The first **24 hours after tooth removal** are **very crucial**.

- You are numb in this area because of the effect of anaesthetic, in a few hours it will wade off, until then be careful to not bite your upper lip or inner side of the cheek.
- Once the effect of anaesthetic wears away, you are expected to experience pain and some swelling for the next 48 hours which will settle down in the coming days as the body is coping with the loss of a structure. So, I will advise you to eat or drink something cold and take pain medication before anaesthetic wears away.
- I will prescribe you pain medications as the one I have done before.
- Bleeding is expected to occur, I will place a gauze piece on which you will bite in that area and remove it after 40 minutes. This will add pressure and stop bleeding. It will stop in the next 20 minutes, but even after taking it off, if it bleeds, please apply pressure with more gauze pieces which I will give you and show as well how to do it.
- In the first 24 hours, an initial clot, which is a blood plug, forming a base for healing. Hence, we have to avoid spitting, rinsing out or gargling for 24 hours.
- Now, I understand you will have questions on how to brush teeth, you can brush the rest of the teeth and that area gently instead of spitting, open mouth and let the water flow out on its own and swallow the rest.
- Do you happen to smoke or drink alcohol? It is best to avoid it for 7 days, to avoid any complications of healing. Initial healing takes around 7-10 days, both have constituents which prevent healing with the production of heat and they dissociate the plug that gets formed.
- In terms of eating and drinking, you can drink room temperature or cold water. And in food I will encourage you to eat something of room temperature or cold and soft, as we want to avoid hot food or drinks. Like soups, or porridge. Also, to avoid using straw, as it creates negative pressure and prevents forming plugs at the healing site.
- Avoid strenuous activities like exercising, swimming or weight lifting.

After 24 hours, you can rinse the mouth after each meal with warm salt water to avoid food lodgement in that area. And hasten the process of healing.
This is a lot to remember, so I will give you everything in the written format too.
Please do not hesitate to contact the clinic for any questions. We will give you a call the next day as a follow-up call. Are you feeling alright, Mr. Singh?

If time permits, you can mention about few complications arising after tooth removal

1. **Dry socket**
2. **Post Surgical Infection**
3. **Excessive bleeding**

Important links to read to understand this case better:

Provision for rural people by Victorian government:

https://www.health.vic.gov.au/rural-health/victorian-patient-transport-assistance-scheme-vptas
https://www.health.vic.gov.au/dental-health/access-to-victorias-public-dental-care-services
https://www.health.vic.gov.au/hospitals-and-health-services/public-hospitals-in-victoria
(List of all public hospitals in victoria)

Management:

Therapeutic Guidelines

Care post extraction:

https://www.dhsv.org.au/__data/assets/pdf_file/0011/154874/20150304-2014_FINAL_Care-After-Extraction.pdf

Emergency care in Australia:

https://www.healthdirect.gov.au/hospital-emergency-departments

https://www.betterhealth.vic.gov.au/health/ServicesAndSupport/emergency-department-what-to-expect