

Report Date:

January 1, 2023

Patient Name:

Sample Patient

Age: 66

Dental Problem:

Discomfort, some pain when chewing on my bridge side.

Treatment wishes/desires:

Take care of the discomfort and renew the bridge which is old and ugly.

Reason for second opinion:

My doctor told me that a tooth underneath the bridge is no good, offered me implants. I am already missing a tooth under the bridge, and I do not want to lose another tooth.

Medical overview:

Type II Diabetes controlled with meds.

Anxiety controlled with med.

No known allergies

No Biophosphanetes

Oral findings from Dr's notes and charting:

Decayed tooth 28, front anchor under the bridge.

Generalized bleeding upon probing, more pronounced around the bridge teeth.

Plaque and calculus accumulation, mostly supra-gingival

Metal ceramic bridge teeth 28-30 with metal exposed after ceramic veneer came off.

No mention of parafunctional bite (bruxing, clenching).

<u>Imaging (Intraoral X-Ray, Panaromic X-Ray, CT Scan)</u>

Generalized horizontal bone loss, slightly more around the bridge but no sign of vertical bone loss.

Limited subgingival calculus

Radiolucency extending into dentin noted teeth 3 mesial and 4 distal (opposing the bridge)

Tooth 28 has distal open margin and decay and small radiolucency around the apex of root.

No other pathology observed.



Considerations:

Periodontal charting is 3 years old and current overall health of hard and soft tissues cannot be adequately assessed.

Likely diagnosis (limited due to no in-person clinical exam):

Medically well suited for dental therapy as long as under physician's control.

Generalized mild periodontitis (Gum disease)

Decay at teeth 3 and 4

Missing tooth 29

Decay at tooth 28 distal extending underneath the gingival tissue

Tooth 28 has root infection caused by leakage at the margin of the bridge.

Treatment options:

(Please refer to last page for teeth numbering chart and prognosis guidelines.)

- 1) No treatment is not a viable option.
- -Gum disease should be addressed and treated aggressively with deep curettage and medication. Good prognosis can be expected with strict follow-up and maintenance.
 - -Teeth 3 and 4 should be treated with either regular fillings or inlays/onlays if loss of tooth structure is more than 1/3 of the tooth. (Good prognosis)
 - -After bridge removal, amount of tooth structure left at teeth 28 &30 should be carefully evaluated. Tooth 30 will most probably have good prognosis and can be treated with a build-up filling if necessary.

A prognostic forecast is needed for the fate of tooth 28.

- a) If there is hardly any tooth structure present, then tooth 28 has poor prognosis and it needs to be extracted. Two options afterwards;
 - a-1) Replace already missing tooth 29 and extracted 28 with two implants as root fixtures since bone height looks sufficient in that region. There will be need for bone augmentation for socket fill 28 and horizontal graft for width gain at 29. Finalize treatment with three ceramic crowns on implants 28, 29 and tooth 30. (Good prognosis)
 - a-2) If no implant procedures desired, after extraction of 28, a 4unit bridge between 27 and 30 can be fabricated. It will involve removing tooth structure on a virgin tooth for bridge anchor. (Fair prognosis)
- b) If there is enough tooth structure (minimum 2 mm in height) left at 28, then saving the tooth with root canal therapy and core build-up is a strong possibility. Two options afterwards;



- b-1) Placement of one implant at 29 with bone graft and afterwards single separate crowns at 28 (treated), 29 (implant) and 30. (Good prognosis)
- b-2) Alternatively, a new bridge on the treated 28 and 30. (Guarded prognosis)

Risks and benefits of treatment options:

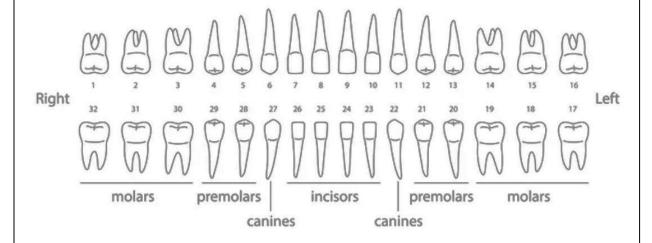
- 1) Without treatment existing infections would get worse and cause more harm.
- 2) When extraction of tooth 28 is eminent, implant therapy in 28 and 29 along with bone grafting is a good long-term solution, even though implant therapy means longer treatment time and costly option. The alternative 4-unit bridge option would satisfy esthetic and functional needs, however, it would be a long bridge bearing most of the chewing. Overloading teeth 30 (molar) and 27(canine) would become an issue overtime and anchor teeth underneath the bridge might have decay/root infection problems, furthermore gum disease can be exasperated. Flexing of the long bridge under the bite loads can also cause chipping off the porcelain.
- 3) In the case when tooth 28 is deemed restorable, root canal therapy with post and core is strongly encouraged. Success of saving a single rooted tooth in an easily accesible region is documented as quite high. However, it will still have fair prognosis due to extensive treatment it needs and it would be best not to serve as an anchor tooth for the bridge. It is better just to serve as a single tooth functioning on its own. Therefore, implant for the missing tooth 29 is advisable to avoid the bridge scenario.

Possible medical implications of dental treatment and dental health in general:

- Diabetes is an important factor in the health of hard and soft tissues of the oral
 cavity since blood flow in capillary arteries can be poorly functioning if it is left
 unchecked. Uncontrolled diabetes can pose serious threat to gum tissues
 causing chronic infection leading to gum recession and bone loss. Diabetic
 patients are strongly recommended to stay regulated with medication and act on
 life-style interventions.
- Psychosomatic medications (i.e. for anxiety) can cause dry mouth and become culprit for decays in the mouth in the absence of saliva. Therefore, good oral hygiene and wetting the mouth with water regularly are good ways to avoid medication induced decay.



Teeth Numbering Chart:



Treatment prognosis is a valuable measure to evaluate treatment options.

What is Prognosis:

A prediction or conclusion in regard to course and termination of a disease; prospect of recovery as anticipated from the usual course of disease or peculiarities of the case.

Stages of Prognosis:

Good: maintainable without compromise

Fair: maintainable with compromise

Guarded: unpredictable factors, uncertain diagnosis

Poor: compromised, plan for loss in time

Hopeless: extract to improve overall prognosis without delay

Factors effecting Prognosis (the outcome of treatment):

- Periodontal status is about the health of soft (gum) and hard (bone) tissues around teeth
- Amount of bone volume determines the adequate support for teeth and implants
- Amount of tooth structure is critical for restoration stability and durability
- Endodontic status reveals health of pulp (nerve) and apical (root apex) tissues
- Functional demand is the amount of biomechanical loads on the teeth when chewing
- Visual demand is weighed in for esthetic and natural looks
- Patient status is about expectations vs local and systemic conditions