

## CROWN LENGTHENING FOR AESTHETIC PURPOSES FROM THE ISLAMIC PERSPECTIVE: A CASE DISCUSSION

Norlela Yacob<sup>i</sup>, Haslinda Ramli<sup>ii</sup>, Mohd Nasir Abdul Majid<sup>iii</sup>, Ahmad Zaki Salleh<sup>iv</sup>, Faizah Abdul Fatah<sup>v</sup>.

<sup>i</sup>(Corresponding author). Senior Lecturer. Faculty of Dentistry, Universiti Sains Islam Malaysia. Kuala Lumpur, Malaysia.

Email: [drnolela@usim.edu.my](mailto:drnolela@usim.edu.my)

<sup>ii, v</sup> Senior Lecturer. Faculty of Dentistry, Universiti Sains Islam Malaysia.

Email: [drhaslinda@usim.edu.my](mailto:drhaslinda@usim.edu.my), [drfaizah@usim.edu.my](mailto:drfaizah@usim.edu.my)

<sup>iii, iv</sup> Senior Lecturer. Faculty of Syariah & Law, Universiti Sains Islam Malaysia.

Email: [ahmadzaki@usim.edu.my](mailto:ahmadzaki@usim.edu.my), [nasirmajid08@usim.edu.my](mailto:nasirmajid08@usim.edu.my)

### Article Progress

Received:

Revised:

Accepted:

### **Abstract**

*The aim of dental treatment is to restore function and improve oral health condition. It is an advantage if the treatment conducted can also improve aesthetic. However, current trend of patient's demand for aesthetic treatment is challenging. This alarming scenario sometimes does not comply with Shariah and Islamic jurisprudence. Crown lengthening is a procedure to facilitate restoration in certain clinical conditions simultaneously improves the aesthetic in anterior region. It involves manipulation of gingiva which requires removal of soft tissue and/or hard tissue. This paper was aimed to discuss the management of missing teeth with crown lengthening surgery from Islamic perspective. In the selected case, a lady requested to replace her denture with a fixed prosthesis that requires surgery. Initially, the surgical procedure was only planned on the right anterior region. However, during the preliminary stage of determining the treatment outcome; crown lengthening on both sides is advice to harmonize the gingival line. The final decision was to carry out surgical procedure on the site of complaint and crown lengthening surgery on both sides. As expected, the outcome of the treatment significantly improved the aesthetic of the patient. This study employs mainly the comparative case study approach where the detail description of the selected case is mapped to the Shariah principles and guidelines related to aesthetic treatment. The selected Shariah principles and guidelines are based on the commonly accepted school of law. In conclusion, this study found that the treatment proposed by the specialist that is based on function first, followed by correction of aesthetics is in line with the guidelines and principles of Shariah as well as legal maxim that falls under acts are judged by their goals and purpose (al-'Umur-bimaqasidiha). Therefore, basic knowledge on Islamic principle is favourable for dentist and patient in deciding the final treatment plan.*

**Keywords:** dental fiqh, aesthetic dentistry, crown lengthening, shariah

## INTRODUCTION

The technology in dentistry has evolved rapidly and the improvement of function and aesthetic for betterment of oral health condition is inevitable. In any dental treatment, the ultimate goal is to restore the oral health function. By doing dental treatment, it is a credit for patient if the aesthetic can be improved. The procedure involves multi-discipline of dental speciality including prosthodontics and periodontics. The need to improve the function and aesthetic is vital because it affects the patient's well-being and psycho-social.

The demand for aesthetic dental treatment is alarming for dentist especially Muslim dentist and Muslim patients. However, to meet patient's need and expectation to look perfect is quite challenging and need careful assessment. It was recommended to have a Shariah guideline for dental practitioner in their aesthetic work (Yacob et al., 2017).

Crown lengthening surgery such as gingivectomy, gingivoplasty and apically repositioned gingiva a resective periodontal procedure that involves reduction and reposition of the periodontal structures around the tooth in order to gain adequate sound tooth structure above the alveolar crest (Yeh & Andreana, 2004). The indication of this procedure is to maintain biological width, facilitate restorative work and ensure periodontal health. The crown lengthening is also used to reposition or altered the gingival line in aesthetic region especially on maxillary anterior teeth (Sonick, 1997). According to Pratik and Pranay (2012), the majority of dentist consider their patient are more conscious of aesthetic smile rather than their dental condition (Pratik & Pranay, 2012). In gaining an aesthetic smile, the teeth need to be well aligned and levelled, and the gingival should have harmony contour (Seixas, Costa-Pinto & Araujo, 2012). Therefore, crown lengthening has become one of the surgery that significantly can improve patient smile and profile. Therefore, the aim of this paper was to discuss regarding crown lengthening procedure to improve aesthetic from Islamic perspective.

## CASE STUDY

A 35-year-old lady was referred from private dental clinic complaining of unsatisfactory removable partial denture and would like to have fixed prosthesis. The amount of hard tissue and soft tissue loss was quite extensive, therefore general practitioner was in hesitant to provide fixed bridge for this patient and seek expert opinion and further management. On the assessment by the periodontist and prosthodontist, both have an agreement that patient need to undergo bone augmentation in order to restore the function and aesthetic of the patient.

Past dental history revealed patient had undergone extensive crown work on her anterior teeth from upper right canine (UR3) to upper left maxillary canine (UL3)

to correct her severe malocclusion. Few months later, right maxillary lateral incisor (UR2) and upper right canine (UR3) had to be extracted due to long-standing dental abscess. Instead of simple extraction patient was suffered from minor oral surgery due to fractured root during extraction and she ended up with transitional acrylic denture to replace the missing teeth.

Upon examination, patient presented with missing tooth on tooth UR2 and UR3 and the amount of alveolar bone loss was enormous which result in disharmony of the gingival line as shown in Photograph A. In addition, radiological view revealed incomplete root canal treatment and periapical radiolucencies on the anterior teeth upper right central incisor (UR1), upper left central incisor (UL1) and upper left lateral incisor (UL2). At the treatment plan stage, the patient was agreed to undergone bone augmentation with provisional bridge while waiting for bone and soft tissue healing. The specialist also gave an option to the patient to perform the crown lengthening procedure at contra lateral side. This procedure was recommended to achieve a harmonious gingival line which at the end of the treatment would give better aesthetic outcome. However, patient had been informed that this procedure was not mandatory. The aim is only to improve aesthetic since the surgical procedure is located in the anterior region. The summary of the treatment plan was as follows:

1. Bone augmentation to improve width and height of alveolar bone for the base of fixed prostheses (4 unit fixed-fixed bridge)
2. Root Canal Treatment on upper right central incisor (UR1), upper left central incisor (UL1) and upper left lateral incisor (UL2)
3. Redo the crowns in UL1, UL2 and upper left canine (UL3).

During bone augmentation, the crown lengthening procedure was performed on both site and a provisional bridge was placed on the surgical area while waiting for complete bone healing as part of the surgical routine (Ramli, Yacob & Ayob, 2014). The final outcome of the procedures showed in Photograph B. The issue was, is crown lengthening procedure with an intention to improve aesthetic is permissible although patient did not ask for it?



**Photograph A.** The gingival contour disharmony on the contra-lateral site.



**Photograph B.** The correction of the gingival contour with crown lengthening procedure on the contra-lateral site.

## DISCUSSION

### Seeking treatment

The main principle in Shariah is that a person is obliged to seek medication and treatment in the event of illness. This is evident from several legal evidences, including a hadith narrated by Usamah bin Sharik which reads:

{ تَدَاوُوا فَإِنَّ اللَّهَ عَزَّ وَجَلَّ لَمْ يَضَعْ دَاءً إِلَّا وَضَعَ لَهُ شِفَاءً، أَوْ قَالَ: دَوَاءً إِلَّا دَاءً وَاحِدًا قَالُوا: يَا رَسُولَ اللَّهِ، وَمَا هُوَ؟ قَالَ: الْهَرَمُ }

Meaning: "Take medication. Indeed Allah does not cause illness except he brings medicine; or he said: illness except for a disease (which cannot be cured) they said: O Messenger of Allah, what is that, he said: that is oldness". (Al-Tirmidhi. Bab al-dawa wa –alhathu alaih. 1996)

In another hadith reported by al-Tirmizi that the nose of 'Arjafah bin As'ad, a companion of the Prophet Muhammad, has badly wounded in the battle of al-Kulab during the jahiliyyah time. The companion replaced his wounded nose with a silver one, until the nose has rotten. The Prophet has then ordered the companion to use gold to reconstruct the nose. The text is as follows:

{ أُصِيبَ أَنْفِي يَوْمَ الْكُلَابِ فِي الْجَاهِلِيَّةِ ، فَاتَّخَذْتُ أَنْفًا مِنْ وَرِقٍ ، فَأَنْزَنَ عَلَيَّ فَأَمَرَنِي رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ أَنْ أَتَّخِذَ أَنْفًا مِنْ ذَهَبٍ }

Which means, "My nose has been cut off on the day of the Battle of Kulab in the days of Jahiliyyah. So I took (replaces) with silver. Then (some time) my nose began to rot. So the Prophet of Allah ordered me to replace my nose with gold." (Al-Tirmidhi. Bab Ma Ja'a Fi Syadd Al-Asnan Bi Al-Zahab. 1996)

By the virtue of this hadith, medical treatment by way of reconstructing body parts is permissible, when the part is wounded. The injury event can be considered as a necessity to legitimize the reconstructive treatment. By the virtue of this hadith also, the gold which was originally forbidden for man was used when it became necessary in event such as treatment for injury.

On the same instance, Al-Qaradhawi stated that "If there are people with a disability that causes the pain to be real or emotional, it does not matter on how to treat it. As long as the pain is eliminated and does not disturb his life. Indeed, Allah did not make this religion a bad one" (Al-Qaradawi: 1997).

### Change of God's Creation

The permissibility on the subject, however, will change to otherwise, i.e. impermissible, when the treatment is no longer intended as necessary. For example for the purpose of mere beautification. In the verse of Al-Nisa':



In this regard, the uncomfortable condition of the patient is considered as state of illness, or part of thereof. The fact that that uncomfortable condition is contrary to the original healthy condition, it triggers the event of necessity. This is based on the principle of necessity "*al-hajah tanzil manzilat al-darurah*" which literally means need may escalate to necessity, as established in Shariah legal maxims. Hence, the principle of seeking medication on the event of illness, as based on the narration of Usamah bin Sharik and the case of 'Arjafah bin As'ad is applied.

### **Psychological discomfort**

The retention of her RPD was good. The tooth arrangement and aesthetic of the present denture was also good. However, patient still experiences discomfort for having denture during eating. This can be considered quite normal psychological discomfort in a young patient that wear removable denture. This behaviour was also supported by Zlataric & Celebic (2008), which stated that the acceptance towards denture in young adult is somewhat limited due to aesthetic & disrupt quality of life. Therefore, she requested for other option to overcome the problem. On the other hand, patient work as a manager and she claimed that wearing denture has impaired her social life.

In dental practice, providing prosthesis to improve discomfort is a patient need. McGrath & Bedi (2001), stated tooth loss was an important predictor of quality of life. By using removable denture, it had significantly reduced her quality of life even though her tooth loss was minimal. It is also in line with *qarwaid fiqhiyyah* as the treatment need for the well being of the patient.

### **Crown lengthening to improve aesthetic.**

During the assessment, a diagnostic wax-up was performed to mimic the future 4 units bridge. Since patient does not have sufficient bone height and width, the final bridge would have long pontic to harmonise with the long abutment on the right central incisors (UR1). On the contra-lateral area, patient did not complaint on the aesthetic. However, a specialist suggested to perform the crown lengthening procedure due to two reasons. Firstly, to provide the best treatment outcome by harmonizing the gingival line. Secondly, since the patient was planned to undergo surgery, so it was best up to the specialist opinion to perform in one sitting procedure. Taking into consideration the specialist experience, patient might in future come and request to harmonize the gingival line. By doing this procedure in advance, it can save time, material costs and patients do not have to go through the healing phase repeatedly.

## **CONCLUSION**

To summarize the exposition of Shariah on reconstructive surgery that is done to a patient, based on previous legal evidence, the followings can be noted:

1. If the element of necessity existed, Shariah does not prohibit a reconstructive surgery. This necessity should conform to Shariah principles such as to eliminate pain, to restore the original condition of the body part due to accident, or to improve the health condition of a patient.
2. If the surgery is for mere beautification process to the patient, and it does not give any impact to the patient in terms of health and life, then the element of necessity is considered as not existed, hence it does not justify the legality of the surgery.
3. The way that the surgery is conducted must also comply with the Shariah principles, from the materials that is used to the gender of the doctor who conducts the operation, especially when sensitive parts are involved.

## REFERENCES

Al-Quran.

Al-Nawawi. 1392H. *Al-Minhaj Sharh Sahih Muslim bin Hajaj*. Beirut: Dar Ihya' Turath 'Arabi. 13/107.

Al-Qaradawi, Y. 1997. *Lawful and the prohibited in Islam*. Cairo, Egypt: Wahbaa Bookshop.

Al-Tabari, M. Ibn Jarir. 2001. *Jami' al-Bayan 'An Ta'wil Ay al-Qur'an*. Cairo: Dar Hijr. Vol.4. p.317.

Al-Tirmidhi. Muhammad bin Isa. 1996. *Sunan al-Tirmidhi (al-Jami' al-Kabir)*. Beirut: Dar al-Gharb al-Arabi. No. 1877.

McGrath, C., & Bedi, R. 2001. *Can dentures improve the quality of life of those who have experienced considerable tooth loss?*. Journal of Dentistry. 29(4). 243-246.

Muslim bin Hajaj. 2006. *Sahih Muslim*. Riyadh: Dar Tayyibah. No: 2125.

Ramli, H., Yacob, N., & Ayob, R. 2014. *Aesthetic Correction of Bony Defect with Multidisciplinary Approach: A Case Study*. World Applied Sciences Journal vol: 30: 360-364.

Sharma, P. K., & Sharma, P. 2012, September. *Dental smile esthetics: The assessment and creation of the ideal smile*. In *Seminars in orthodontics* .Vol. 18. No. 3. pp. 193-201. WB Saunders.

- Seixas, M. R., Costa-Pinto, R. A., & Araújo, T. M. D. 2012. *Gingival esthetics: an orthodontic and periodontal approach*. Dental Press Journal of Orthodontics. 17(5). 190-201.
- Sonick, M. 1997. *Esthetic crown lengthening for maxillary anterior teeth*. Compendium. 18(8), 807-812.
- Yacob, N., Ramli, H., Majid, M. N. A., Fatah, F. A., & Zahid, D. M. 2017. *The Application of Maqasid Shariah and Legal Maxims in Aesthetic Dentistry Involving Malocclusion and Root Canal Treatment: Case Discussion*. Advanced Science Letters, 23(5), 4550-4553.
- Yeh S & Andreana S. 2004. *Crown lengthening: basic principle, indications, techniques and clinical case reports*. NY State Dent J. Vol. 70: 30-36.
- Zlaticaric, D. K., & Celebic, A. 2008. *Factors related to patients' general satisfaction with removable partial dentures: a stepwise multiple regression analysis*. International Journal of Prosthodontics, 21(1), 86.

### Photograph

- n.a 2014. Photograph A. *Aesthetic Correction of Bony Defect with Multidisciplinary Approach: A Case Study*. World Applied Sciences Journal vol: 30: 360-364.
- n.a 2018. Photograph B. *Faculty of Dentistry*. Universiti Sains Islam Malaysia.

### Disclaimer

Opinions expressed in this article are the opinions of the author(s). Journal of Fatwa Management and Research shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to arising out of the use of the content.