香港牙醫管理委員會

The Dental Council of Hong Kong

Disciplinary Inquiry under s.18 of DRO

Defendant: Dr LO Ka-man 羅嘉文牙科醫生 (Reg. No. D03989)

Date of hearing: 1 September 2022, 20 October 2022 and 2 December 2022

Present at the hearing

Council Members: Dr LEE Kin-man, JP (Chairman)
Dr CHEUNG Tat-leung
Dr LIU Wai-ming, Haston
Dr TUNG Sau-ying, MH

Legal Adviser: Mr Stanley NG

Defendant: Represented by Mr Chris HOWSE of Messrs Howse Williams, Solicitors

Legal Officer representing the Secretary: Miss Vienne LUK, SGC

The Charges

1. As set out in the Notice of Inquiry dated 15 October 2021, the amended charges against the Defendant, Dr LO Ka-man, are as follows:

> "On or about 11 August 2019, you, being a registered dentist, disregarded your professional responsibility to adequately treat and care for your patient, [redacted] ("the Patient") or otherwise neglected your professional duties to the Patient in that you –
>
> (i) failed to carry out adequate pre-operative assessment to investigate and to locate the cause and site of pain originating from the teeth in the

lower right posterior quadrant;

(ii) failed to interpret the radiographic findings associated with the teeth in the lower right posterior quadrant after exposing a periapical radiograph of the area;

(iii) wrongly identified the lower right second molar ("the Second Molar") as the tooth causing pain to the Patient; and/or

(iv) wrongly extracted the Second Molar instead of treating the lower right first molar to alleviate the Patient's pain;

and that in relation to the facts alleged, either singularly or cumulatively, you have been guilty of unprofessional conduct."

Facts of the Case

2. At around 3 p.m. on 11 August 2019, the Patient consulted the Defendant at the Hong Kong Adventist Hospital – Tsuen Wan ("the Hospital"). The Patient complained of severe pain in the lower right quadrant.

3. During oral examination, the Defendant discovered the Patient's wisdom tooth in the lower right quadrant (i.e. tooth 48) was horizontally impacted. The Defendant conducted a percussion test and an air blowing test to teeth 46 and 47. Neither tooth was tender to percussion. Tooth 47 gave a reaction to the air blowing test.

4. The Defendant took a periapical radiograph ("the Radiograph") of the lower right quadrant, from which she noted radiolucency on both the lower right first molar (i.e. tooth 46) and the second molar (i.e. tooth 47).

5. The Defendant subsequently extracted tooth 47. However, the extracted tooth 47 did not show any cavity. The Patient left the clinic.

6. At around 10 p.m. on the same day, the Patient returned to the Hospital due to recurrence of his pain. The Patient consulted a Dr HUANG. Dr HUANG noted that the Patient was in a lot of pain. Dr HUANG took a panoramic radiograph and noted signs of pulpitis on tooth 46. Dr HUANG told the

Patient that root canal treatment ("RCT") of tooth 46 was required. RCT on tooth 46 was performed. The Patient's pain was relieved after the RCT.

7. On 4 September 2019, the Patient lodged a complaint with the Dental Council against the Defendant.

Burden and Standard of Proof

8. The Council bears in mind that the burden of proof is always on the Legal Officer and the Defendant does not have to prove her innocence. The Council also bears in mind that the standard of proof for disciplinary proceedings is the preponderance of probability. Moreover, the more serious the act or omission alleged, the more inherently improbable must it be regarded. Therefore, the more inherently improbable it is regarded, the more compelling the evidence is required to prove it on the balance of probabilities.

9. There are a number of charges against the Defendant. The Council needs to look at all the evidence and to consider and determine each of the charges separately.

Unprofessional Conduct

10. According to section 18(2) of the Dentists Registration Ordinance, Cap. 156 ("DRO"), "unprofessional conduct" means an act or omission of a registered dentist which would be reasonably regarded as disgraceful or dishonourable by registered dentists of good repute and competency.

Findings of Council

Charge (i)

11. At the consultation on 11 August 2019, the Patient complained about severe pain at the lower right quadrant. To investigate and locate the cause of pain, the Defendant took medical history from the Patient; carried out an oral examination; performed a percussion test and an air blowing test on teeth 46 and 47; and taken the Radiograph of the Patient's lower right quadrant. The Defendant told us that she could only make a provisional diagnosis based on these pre-operative assessment tools.

12. It was suggested by the Secretary's expert, Dr LIU, Simon Chi-yung ("Dr LIU"), that the Defendant should have carried out additional tests such as additional radiographs, electric pulp test, cold test and cone beam computed Tomography ("CBCT").

13. As regards the suggestion of additional radiographs, whether periapicals or an OPG, we agree with the Defendant's expert Dr Thomas LI Ka Lun ("Dr LI") that because the way in which the mesial cusp of 48 was wrapped around 47, additional radiographs would not have provided any further information on the relationship of the two teeth. Dr LIU accepted this in cross-examination.

14. As regards the suggestion of electric pulp test, we agree that this test was not very helpful especially when the Patient was in acute pain. In order to perform the electric pulp test, the Defendant would have to isolate the teeth individually, dry them and then put toothpaste on both the tester and on the tooth so as to get a reading from the electric pulp tester. As the Patient was continually sipping cold water, it would be very difficult for the Defendant to perform and to obtain a reliable result from such a test.

15. As regards the suggestion of a cold test, because the Patient was continually sipping cold water, such a test was not plausible.

16. As regards the suggestion of CBCT, both experts agreed that although a CBCT would have shown that there was no caries on tooth 47, it would not have enabled the Defendant to make a definitive diagnosis of whether 46 or 47, or indeed both of these teeth, were the cause of the Patient's pain. In any event, CBCT was not available to the Defendant at all material times.

17. We accept that the Defendant had made an effort and performed everything she could have done to come to her provisional diagnosis. We are satisfied that she had carried out adequate pre-operative assessments as a starting point to further manage the Patient. Her next step was unfortunately based on her provisional diagnosis, which turned out to be incorrect and leading to her extracting tooth 47, which was irreversible. We must stress that a dentist should always bear in mind that the more irreversible the procedure, the more definitive should be required from the diagnosis.

18. In any event, charge (i) is based on adequacy of the pre-operative assessments done by the Defendant. We agree that what the Defendant did in this case was adequate to come to a provisional diagnosis and as the starting point for further management. We therefore acquit the Defendant of charge (i).

Charge (ii)

19. The Defendant's clinical diagnosis and her decision to extract tooth 47 very much depended on her interpretation of the Radiograph. At the inquiry, the Defendant showed us from the Radiograph that there was some dark area or radiolucency on the distal of tooth 47 ("the 47 Radiolucency"). The Defendant said that the 47 Radiolucency was caries, which extended into the pulp of tooth 47. The Defendant therefore believed there might be inflammation of the pulp at tooth 47 causing the pain to the Patient.

20. At the inquiry, the Defendant's expert Dr LI told us that he had shown the Radiograph to around 10 dentists, and the majority of them also interpreted the 47 Radiolucency as caries. On this, we must say what Dr LI did when asking the few peers was done in the most perfunctory and casual way, and is not something we should expect from any expert giving evidence before the Council. First, Dr LI told us that he sent out the image of the Radiograph via Whatsapp messages to these dentists. We have grave doubt if images via Whatsapp messages could accurately reflect the images of the Radiograph. Second, Dr LI did not tell us in details who these dentists were, and how the comments of these few dentists were representative of the entire dental profession. We have no hesitation to dismiss what Dr LI said in relation to what he asked from his few peers.

21. In our view, a radiographic image is one thing. The real situation of the teeth in the mouth is another thing. A dentist has to translate radiographic images to correlate with the real situation such as structural loss or damage due to any pathological condition. The Council cannot accept the opinion of the Defendant's expert that correlation of radiographic changes to caries progression is something taught beyond undergraduate level and most dentists only interpret radiograph by pattern recognition. Such comments shocked the Council. It is absolutely very basic and elemental for a dentist to make correlation of radiographic changes to caries progression when interpreting radiographs.

22. Another pre-requisite of interpreting a radiograph is to determine whether the radiographic image is of good and reliable quality. The Defendant also admitted that she did not correlate the image to the intra-oral condition of the teeth so as to establish the correlation of the tooth caries status to the presence of radiolucent areas in the image. The Defendant admitted that she did not qualify or calibrate the radiograph to the extent that it was a reliable x-ray to interpret.

23. When we look at the Radiograph taken by the Defendant, there is also radiolucency at tooth 46 distal and tooth 47 mesial ("the 46-47 Radiolucency"), which appears to be in similar degree as that of the 47 Radiolucency. The area of 46-47 Radiolucency is quite extensive and is accessible for visual inspection and probing. However, the Defendant had not inspected the area of the 46-47 Radiolucency with the probe to see whether there was cavitation or anything that would cause the radiolucency.

24. The Defendant's expert Dr LI told us that there was overlapping of tooth 48 and tooth 47. Dr LI said that once there was overlapping, there would be the Mach effect, which happened all the time, and one could not avoid the Mach effect. In our view, given that the Mach effect was likely to happen, the Defendant should have taken extra caution to rule out the Mach effect before forming the view that the 47 Radiolucency was caries. The Defendant had not done anything at all to rule out the possibility of Mach effect. So on one hand, Dr LI said it was acceptable for the Defendant to diagnose caries based on the available digital image on hand and to believe it affected the pulp and caused pain to the Patient. On the other hand, Dr LI commented the absence of undermining enamel and the Mach effect might cause misinterpretation of the image to real situations. Dr LI went further to opine that if one could see undermining enamel on 47 distal due to usual caries progression pattern, that might indicate the presence of caries. However, he then said he did not see any obvious undermining enamel. The lack of prudence for such conflicting comment is totally unexpected from a dentist trained and practiced dental radiology.

25. When the Defendant saw the 47 Radiolucency from the Radiograph, what immediately came to her mind was that it was caries extending into the pulp of tooth 47. She did not even consider if the radiolucency could be the Mach effect or even cervical burnout, and immediately jumped to her conclusion. In

her clinical notes, there was no mention of other possible causes such as periodontal infection of 47 distal area and the pulpal infection of 46.

26. In our view, the failure on her part to consider all of the above in interpreting the Radiograph was elemental.

27. We are satisfied that the conduct of the Defendant had seriously fallen below the standard expected amongst registered dentists. It would be reasonably regarded as disgraceful and dishonourable by registered dentists of good repute and competency.

28. We therefore find the Defendant guilty of charge (ii).

Charge (iii)

29. Given the information from the Defendant, it was inconclusive to determine the cause and location of the pain. The possibility of pain originating from tooth 47 or tooth 46 or both existed.

30. Both experts agreed with this possibility.

31. Therefore, we cannot definitively conclude that tooth 47 was wrongly identified as a source of pain.

32. We therefore acquit the Defendant of charge (iii).

Charge (iv)

33. Given that tooth 46 or 47, or both teeth could have been responsible for the Patient's pain, we cannot be certain if the lower right first molar (i.e. tooth 46) was the only source of pain that had to be treated to alleviate pain.

34. We therefore acquit the Defendant of charge (iv).

Sentencing

35. The Defendant has no previous disciplinary records.

36. The Council bears in mind that the purpose of a disciplinary order is not to punish the Defendant, but to protect the public and maintain public confidence in the dental profession.

37. We agree that this case was difficult for the Defendant to manage and to reach a definitive diagnosis as the Patient was in acute pain and great distress. However, ability to manage difficult patients and any clinical decision made should not be compromised by these difficult situations. We accept that the Defendant should have learnt a hard lesson from this case. The risk of re-offending is low.

38. Having regard to the gravity of the case and the mitigation submitted by the Defendant, the Council orders in respect of Charge (ii) that a warning letter be issued to the Defendant, and our order shall be published in the Gazette.

Remarks

39. The Council has other observations. The Council stresses that no part of the following observations were taken into account when considering the findings and sentencing above.

40. The Defendant told us that she has not taken any CPD courses. We would wish to take this opportunity to encourage her to enroll in the Dental Council's voluntary CPD programme to keep her knowledge updated and to engage in professional activities.

41. We would wish to remind all parties to impress upon their respective experts that their paramount duties are to the Council, and they should be non-partisan. Further, they should ensure there be proper procedures to safeguard confidentiality of matters relating to proceedings before the Council. When they quote previous decisions of the Council, they should not be misleading and have to ensure that everything they quote are accurate in all respects.

Dr LEE Kin-man, JP
Chairman
The Dental Council of Hong Kong