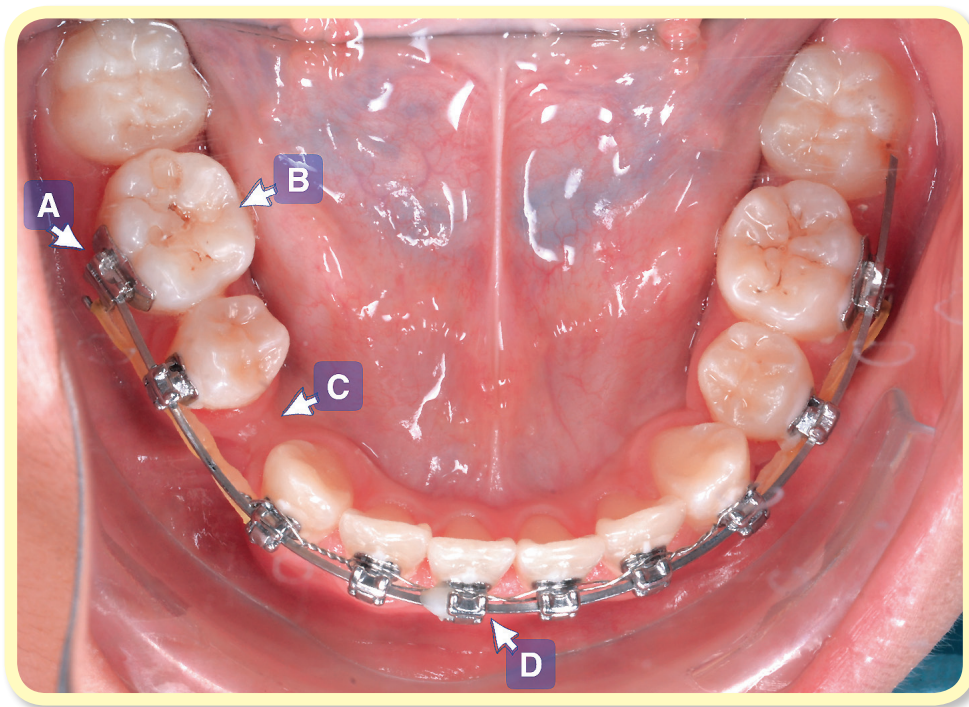


Tips in solving clinical errors : Management of wire dislodgment

Wire dislodgment is a common issue found in routine appointments. Two of the primary causes include closing of extraction spaces and sliding of the main archwire. Doctors should perform a careful examination before cutting flush with the end of a tube. If wire dislodgment is caused by sliding, cutting the wire renders it short to engage all brackets. Therefore, a checklist is proposed to help clinicians rule out unintended sliding before cutting. (Int J Orthod Implantol 2016;41:86-87)

1. Check if an explorer can enter the molar tube.
2. Check if the molar is rotated.
3. Check if bilateral extraction spaces are not closed symmetrically.
4. Check if one or more resin stops are lost.



■ Fig. 1: Intra-oral photograph before adjustment.

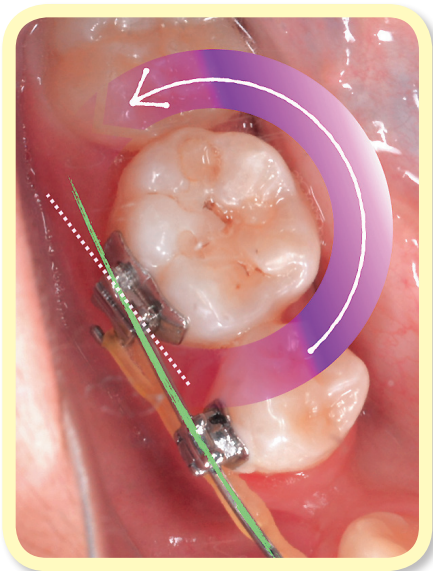
Dr. Angle Lee,
Editor, *International Journal of Orthodontics & Implantology* (Left)

Dr. Chris Chang,
Founder, *Beethoven Orthodontic Center*
Publisher, *International Journal of Orthodontics & Implantology* (Right)



The following is an example of how to apply this checklist to perform this assessment. Fig. 1 shows that the main archwire presents an excessive tail on the mandibular left side. One should first use an explorer to check if the opposite end of the archwire is fully engaged in the molar tube. When the tip of the explorer can enter the molar tube from the distal end, it is indicated that the wire is not fully engaged (Fig. 1A). Another indication of wire dislodgment is the counter-clockwise rotation of the molar (Figs. 1B & 2). Furthermore, a significant extraction space remains on the right side while the left one is closed. Such discrepancy is suspected to be caused by wire dislodgment, preventing the right molar tube from sliding along the archwire (Fig. 1C). Lastly, a resin stop on the left side is lost, which might contribute to the main archwire sliding (Fig. 1D).

With this list clinicians can easily and systematically analyze if the presence of an excessive tail should be cut flush or it is, in fact, a sign of wire dislodgment and should be re-engaged.



■ **Fig. 2:**
The relationship between long axis of the molar tube (purple dotted line) and the main archwire (green line) shows that the molar presents a counter-clockwise rotation.



■ **Fig. 3:**
After adjustment, resin stops are rebonded and elastomeric chains are used to close extraction spaces. The ends of the archwire are visible bilaterally, indicating the wire is fully engaged in the molar tubes.