Correction of molar relationship and space closure with the TMA 4 L-loop archwire
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Correction of molar relationship and space closure are important parts of orthodontic treatment. As a general rule, space closure in moderate anchorage situation with the .022" slot edgewise appliance is done in two steps. First retraction of canines, and second retraction of four incisors, usually with a closing loop. The space closure mechanics is a variable. But its mechanics is necessary to appropriate loop design and wire bending for the nonfrictional space closure. Orthodontic material manufacturers supply many ready-made space closure archwires. We can effectively close the space by TMA(.019"×.025") archwire with 4 L-loop in similar situation. In this mechanics, we retract the canines(3mm distally) before the space closure. Loop design can be modified according to the amount of bite depth or the anchorage value.

This archwire can be applied to all 1st premolar extraction case. For the more versitile control of anterior teeth, we use the Asher face bow or J hook headgear. And its advantages as follows; 1) easy control of overbite and overjet, 2) correction of Class II or III molar relationship, 3) easy control of canine rotation, 4) generated lower force to anterior teeth.

Mechanics of Canine Retraction

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Crowding을 해소하기 위하여 소구치를 발거하는 증례에서 전치부의 decrowding, leveling 또는 retraction을 위하여 견치를 원심이동시키게 된다.

견치의 이동 방법에는 호선상에서 견치의 미끄러짐에 의해 후방이동하는 friction system과 마찰없이 spring을 이용하여 견치를 분절로 후방이동하는 non-friction system이 있다.

각각의 system에 해당되는 mechanics의 적용방법과 이들의 작용기전을 제 시하고자 한다.

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