Girl With Systemic Lupus Erythematosus

Townies discuss whether a chronic disease like lupus alters treatment modality and offer their opinions on a related case.

This 16-year-old patient came in with the chief complaint that her lower anterior tooth “is far back.” Medically: rheumatoid due to systematic lupus erythematosus. She takes Cortisone 5mg daily from seven years, as well as Osteocare and vitamin D.

Class I skeletal and dental. High-angle MP-SN 40; upper and lower incisors proclined; LR2 displaced lingually; 6mm overjet due to tongue thrust habit. My plan is to extract U4s in upper arch, but I am confused about extraction pattern in lower. Extract 4s, or extract LL4 and LR2? What are the precautions for this patient who has this systematic disease?

I think I might start this case nonextraction just in case there is an oral ulcer flare-up. If you extract teeth and she has a flare-up, you may be in trouble. But if she does fine, you can always extract teeth later when you are in full-size wires.

Thank you for replying. What about extraction pattern in lower arch?

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I think U/L 4s would be OK in a high-angle case such as this. That way you can shift the lower midline to the left easily.

For what it is worth, in my personal clinical observation of a few patients who regularly consumed supplements with the potential to stabilize bone turnover, their teeth were very stubborn to move. Specifically, glucosamine and chondroitin.

The reason I bring it up is Osteocare, which your patient is on, is available with glucosamine and chondroitin.

I previously searched and searched but could not find a solid position paper on this, but I can tell you closing generalized space nonextraction, I had to resort to good old closing-loop mechanics. And it took a while. Energy chain from RMO would not get it done alone.

An excerpt from the below referenced thesis:

Remodeling of the ECM of the PDL is believed to play an important role in tooth movement. MMPs are a group of enzymes which have been implicated in the remodeling of the ECM. The function of these enzymes is regulated by a number of inhibiting factors TIMPs. It is believed that modifying the function of these enzymes and their inhibitors can have an effect on tooth movement. A study by Holliday et al. (2003) demonstrated that TIMP can inhibit tooth movement. (6.5.5 7GB9, S and CS relation to TM and OIIRR)

There has not been a study to date that has evaluated the effects of GS and CS on orthodontic tooth movement and root resorption. Although there has been no direct link demonstrated, it may be inferred from studying the effect of GS and CS in OA that they may possibly influence the periodontium and thus tooth movement and root resorption. A study of the influence of combined Glucosamine Sulfate and Chondroitin Sulfate systemic supplements on root resorption and tooth movement in rats: Nour Eldin Tarraf BDS (Hons) Discipline of Orthodontics Faculty of Dentistry University of Sydney Australia.

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Dental Science (Orthodontics) September 2008

So, my suggestion would be to start with a therapeutic diagnosis nonextraction and verify that tooth movement is predictable prior to extracting any teeth.

Today’s images. I lean toward extraction, four teeth, but I fear from regular Cortisone supplement.
Given hygiene and ceph/soft tissue balance … U4s, LR2.

U4s/L5s but not until OH improves significantly. I would have her get a deep cleaning and leave wires out until you can see a reduction in inflammation.

Why not LR2 and LL5?

Certainly doable, but will require IPR and reshaping for better occlusal fit.

With both midlines to the right, I would extract only UL4, LL5. I would not have a big issue with extracting right 5s as well, but do not think she is that high plane and not overly proclined or full for her ethnicity.

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Does a systemic disease like lupus complicate or compound treatment? To see what Townies had to say, head to orthotown.com and search “systemic lupus”—this message board will be the top result.

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