We usually analyze soft tissues in addition to bone planning.

For example a patient with high tonicity in the upper lip, and she complains of a gummy smile, incisal show at rest is normal. If you did maxillary impaction there will be no incisor show and it will affect her appearance at rest so it’s important to diagnose the problem before proceeding.

Diagnosing the problem and its etiology from the start determines your plan, the problem here is muscular not bony.

Possible causes of gummy smile: plastic gums, excess growth of the maxilla, Short crowns, hypertonicity.

So sometimes it’s only a problem of soft tissue and you can give botox, without the need of surgery.

Patients with thick lips, planned for maxillary advancement, the lip response or the profile will be different from those with thin lips.

Chin is responsive to the advancement of the mandible 100%. If you advance the mandible 5mm for example, it will follow the bone and move 5 mm as well. So you have to be careful.

Usually maxillary advancement gives 50% changes in soft tissues, if you advance it 5 mm, it will give 2.5 mm.

(I’m not sure about the last two information, didn’t get them very well)

So you have to assess each soft tissue measurement before surgery to make sure the results are acceptable.

Computer analysis is very important to figure out how the patient will look like.

The doctor started to present surgical cases:

-Case 1: This patient came after treatment, this is a simple case of a class II patient, that can actually be treated by simple orthodontics; extraction of premolars, retroclination of the upper, and her chin was not bad.

The patient undergone bimaxillary surgery.

The result of the surgery was very bad, it was due to improper planning, a classic example of the importance of many factors in planning. Her doctor advanced the maxilla, with no need, the problem was dental not bony. He caused asymmetry of the chin, and the nose. She lost her facial attraction. A simple example of bad planning, not taking every single factor into consideration.

-Case2: Condylar hyperplasia with asymmetry. The plan was to first do a condylectomy. He had an active condyle and from the CT scan he had an increased vertical height of the mandible, so we had to do a condylar shave, along with lower border shaving. We took him into surgery, removed the condylar head. In the lower border we did an extraoral incision.

-Usually in these patient the Inferior dental nerve goes down with growth

-our only approach here, we here have the ID nerve down with the lower border, so we had to remove the outer layer of the mandible, clear the nerve from the way and then remove the inner aspect.

-Case3: This case was a bit more difficult, her problem was not in the face, it’s condylar hyperplasia but different presentation, with occlusal problem and tilted chin. So we did condylectomy and bimax surgeries, we moved the maxilla up on this side, by sagital split osteotomy. mandible will follow and we did a genioplasty. A bit more complicated, but she looked better, asymmetry was corrected, and soft tissues surprisingly followed the maxilla.

-Case4: Another hemifacialmicrosomia, we inserted an internal distractor. Now he’s 18 years old and ready for the final surgery. Ear correction is done by surgery or a prosthetic ear which usually gives better results.

-Case5: Sometimes the case is related to a disorder like the one here. She had a severe fibrous dysplasia, with fibrous tissues and displaced orbits. So you need to be careful about diagnosing, and planning those cases.

Masseter hypertrophy can also cause facial asymmetry.

-Case6: A class III male patient with a severely prognathic mandible. You will be surprised that we didn’t move the mandible back. This guy, was a big one, so it was not really convenient to move his mandible back.So we advanced the maxilla, it was more suitable for him, for his face and his body.So he ended up with a strong chin, better maxilla, his profile was good without setting back the mandible. Also some reports talk about sleep apnea in cases where you set the mandible back a lot.

-Case7: a patient with crouzon syndrome (early fusion of skull bones that prevent normal growing)

Advancement of the maxilla by 11 mm.