

FACIAL ASYMMETRIES: why correct?

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AIM: Perfect symmetry is associated with beauty concept but a perfect symmetrical face can sound often false or inexpressive. Face asymmetry is a characteristic trait of the human species: asymmetry is the rule, symmetry is the exception. It's distributed in many parts of the face; a complete elimination of all small components would be impossible as well as undesirable.

MATERIALS and METHODS: There are reversible asymmetries (correction possible during growth) and real, irreversible asymmetries. Proper correction needs adequate diagnosis and aetiological evaluation. We describe our diagnostic path and decision tree.

THERAPEUTIC CHOICES BASED ON AGE

A correct treatment choice, in addition, requires to take into account patient age and the growth factor. Residual growth can become a double-cut weapon, especially if not considered

- 1.PRIMARY dentition:** functional appliances, Planas therapy, bur milling
- 2.MIXED dentition :** functional appliances, Planas therapy, RME, fixed orthodontic treatment, bur milling
- 3.ADULT dentition:** functional appliances, Planas therapy, RME, fixed orthodontic treatment, bur milling, orthognathic surgery



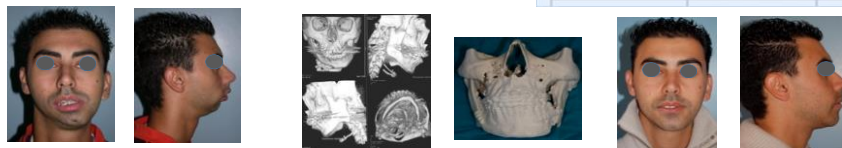
An asymmetrical case treated with Planas principles



Asymmetrical case treated with RME in growth period



Asymmetrical dental and skeletal occlusion treated with a monolateral bite jumper



Skeletal asymmetry with TMJ ankylosis CBCT Rapid prototyping

Surgical correction

OUR DIANOSTIC PATH

Patient should be evaluated from 12 o'clock. In folder must be registered:

- A) midlines position at the beginning and throughout orthodontic treatment
 - B) minimum occlusal plane obliquities (with a lower wedge retained between the lips in premolars area)
 - C) coincidence between dental midlines in maximum intercuspitation (PMI) and midlines position at opened mouth
- Stone casts mounted in articulator
 - Teleradiograph
 - Rapid prototyping from facial massive Tac



OUR DECISION TREE

TYPE OF ASYMMETRIES		MIDLINES IN PMI	MIDLINES IN MAXIMUM OPENING	ETIOLOGY	THERAPY
FUNCTIONAL	monilateral crossbite	not centred	centred	nasal breathing incorrect habits osas osas reduction of nasal desharge atypical shallowing low lingual posture	1)incorrect habits modification 2)bur milling 3)palatal expansion
	Unilateral chewing (PLANAS)	not centred	centred	incorrect habits	1)bur milling to reduce stiffness cusps 2)composite to smooth AFM angles 3)canine torque correction
DENTAL	DDA	not centred	not centred	crowding early loss of deciduous or definitive teeth	orthodontic correction 1)bur milling 2)ortho prosthetic retreatment surgery
SKELETAL	precontacts with mandibular despacement	not centred	partially centred	incorrect prosthetics and orthodontics therapies	retreatment surgery
	Hypercondilar growth	not centred	not centred	primitive skeletal	surgery
ATM asymmetries	monilateral mandibular hypoplasia	not centred	not centred	trauma or anchilosis	surgery
	ATM disorders	centred or partially centred	not centred	closed md lock	1)atm therapy 2)bur milling 3)surgery

*PMI= Position in maximum intercuspitation

RESULT: Perfect symmetry is a chimere and often compromise must be accepted: slight deviation of midlines is acceptable if not associated with functional problems.

CONCLUSIONS: proper diagnosis is necessary. Different aetiologies need different therapeutical approaches. It is a tough test as the anomaly is never localized but distributed in most parts of the face. Therapy may require unpleasant choices, often forced to accept compromises: in nature, asymmetry is the rule, symmetry is the exception. Median lines slight deviation and slight occlusal cant are acceptable if not associated with functional problems.

- dental level: 1 mm of midlines asymmetry is difficultly noted by anyone but 3 mm are noted.
- facial level: 3 mm of facial asymmetry are not noted by anyone but 6 mm of facial asymmetry begin to be relevant.

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