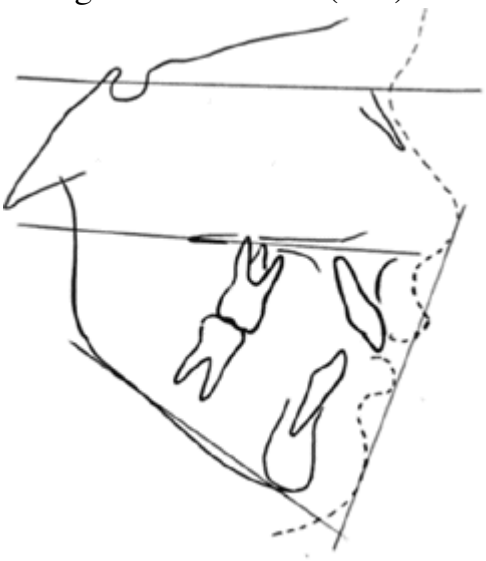
valign="top">SNPg 81 78 NSBa 130 135 ML-NSL-1 32 36 NL-NSL 8.5 7 ML-NL 23.5 29 Gn-tgo-Ar 126 131 N-Sp' (mm) - 49 Sp'-Gn(mm) - 65 N-Sp'/Sp'-Gn x100% 79 75 Interincisiv 131 126 +1-NA 22 24 T-NB 25 20 +1-NA 4 3 T-NB 4 4.5 Pg-NB mm - 2 N-angle 58 56 UL-EL (mm) 2 2 LL-EL (mm) 0 -1 H-angle 8 14



SNA of 86 degrees and SNB of 77.5 degrees reveal a prognathic
maxilla and a retrognathic mandible.
ANB of 8.5 reveals a distal basal relation.
The mandibular plane inclination has a value of 36 degrees and the inclination of the maxilla is 7 degrees. Therefore the intermaxillary angle is 29 degrees which is indicative of an open basal configuration.
The gonial angle is larger than average (131), indicating a posterior growth pattern.
The face height ratio is smaller than the average values and equals 75.
The incisors in both arches are a slightly proclined especially in the maxilla, I-NA=24 degrees and 3 mm and I-NB=20 degrees and 4.5 mm.
As a result the interincisal angle (126 degrees) is smaller than average.
The distance is 2 mm. The upper lip is anterior to EL (-2mm) and the lower lip is 1mm posterior to it.

Growth Prognosis

The patient is in PP2 stage, meaning that she still has still growth left. The growth direction seems to be posterior.

Diagnosis

1. Oval simmetryc face, convex profile
2. Distal basal sagittal relation
3. Angle Class II division 1
4. Overjet of 11 mm and overbite of 1 mm
5. Open basal configuration
6. 5.5 mm of crowding in the UA and 1 mm of crowding in the LA

Etiology

It is very likely that this malocclusion is due to heredity, but surely the thumb sucking habit has influenced the development of the malocclusion in some way.

Treatment needs

The treatment need is mostly profilactic (preventing trauma), but also functional and esthetic.

Treatment Aim

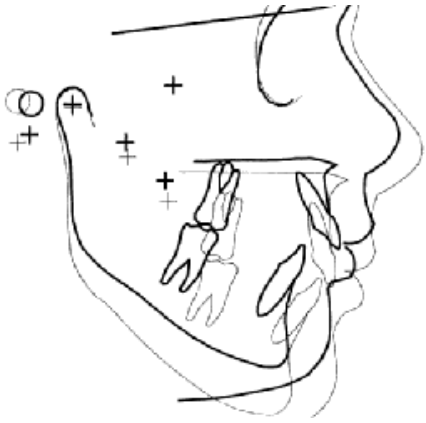
1. Stop the thumb sucking habit
2. Achieve neutral basal sagittal configuration
3. Achieve Class I relationship
4. Reduce the overjet and the overbite

Treatment Procedures

DEC.92	Dental and medical history, clinical examination, intra- and extra-oral phtotographs, impressions for study models, and radiographs were taken.
FEB.93	Motivated the patient to stop the finger sucking habit. Impression taken for a tongue grip plate with expansion screw
MAR.93	Tongue grip plate inserted and motivated the patient to use it during the night
JUN. 93	A labial arch was added to the plate and the plate was expanded every second week
SEP. 93	Took impressions for a Bergen plate with expansion screw
OKT. 93	A Bergen plate with expansion screw was given to the patient to be used without head gear
JAN.94	The patient has 63,64 and is going to loose 53 and 54. It was decided to have the face bow added to Bergen plate.
FEB.94	Cemented bands on the upper molars. Adjusted face bow and took impressions for an expansion plate. Inserted expansion plate and instructed patient to turn the screw 1/4 every week
APR.94	The plate has been expanded about 4 mm and she has used the plate with the face bow. The molars on the right are almost in Class I relation, while on the left they are in cusp to cusp relation.
MAY.94	Added labial arch to the plate. Referred the patient to the pediatric dentistry department for extraction of 54 and 55.
SEP.94	The patient has been very compliant in using the expansion plate and the face bow. She is in "Super Class I" on both sides. Bonded UA and LA. Inserted and cemented transpalatal bar. UA 0.014 Australian LA 0.016 Nitinol
NOV.94	UA bonded bracket on 23, same arch. LA bonded tubes on 37 and 47, same arch
DEC.94	UA 0.016 x 0.016 and class II elastics on 13, 23. LA Retroarch
JAN.95	Criss-cross elastics from 36-26 and from 16 to 46 to move 16 and 26 more palatally
FEB.95	UA: 16-26 have moved buccally. New 0.016x0.016 from 16 to 26. Kobayashy on 13,14 23,24LA 0.014 Australian Kobajashy on 34,35 and 44-45 Class II elastics from 13-44 14-45 23-34 24-35
MAR.95	The bite still open. UA 0.016 x 0.022 with torque in the anterior. The wire is extended to the upper second molars, 17.27 LA 0.016 Australian. The patient still use the class II elastics

Evaluation of treatment results

Cephalometric Analysis	Mean	Value 04/92	Value 06/95
SNA	82	86	81
SNB	80	77.5	75.5
ANB	2	8.5	5.5
SNPg	81	78	76.5
NSBa	130	135	137.5
ML-NSL-1	32	36	41
NL-NSL	8.5	7	9.5
ML-NL	23.5	29	31.5
Gn-tgo-Ar	126	131	130.5
N-Sp' (mm)	-	49	55.5
Sp'-Gn(mm)	-	65	77
N-Sp'/Sp'-Gn x100%	79	75	72.5
Interincisiv	131	126	131.5
+1-NA	22	24	14
T-NB	25	20	29
+1-NA	4	3	1.5
T-NB	4	4.5	7
Pg-NB mm	-	2	2.8
N-angle	58	56	52
UL-EL (mm)	2	2	-3
LL-EL (mm)	0	-1	-1.5
H-angle	8	14	9.5



The treatment objectives were:

1. Achieve a neutral basal sagittal relation
2. Achieve molar and canine Class I relationships
3. Correct the overjet and the overbite
4. Align and harmonize the arches

The treatment objectives were fulfilled.
The achievement of the Class I relationship was achieved by distalization of the upper first molars.
The sagittal analyisis shows molar and canine Class I relation on both sides.
Both arches have been nicely levelled.
The interdigitation on both sides is still not perfect.

Home page

editor@vjo.it