the Child Dental Patient with

DOWN syndrome

Clinical cases

Case 1. Razvan, male, age at 1st visit: 5y

Main dg: Down syndrome
Dental dg: caries in primary dentition

Cooperation: initial Frankl 2-1, gradually evolved to Frankl 3-4
GA (initially considered due to treatment complexity), was avoided with Mom's help.

Treatment stages:

- gain of trust
- improvement of oral hygiene – professional cleaning
(tip: use anaesthetic gel before first professional brushing)
- step-by-step caries treatment
- manoeuvers needing LA (extractions)

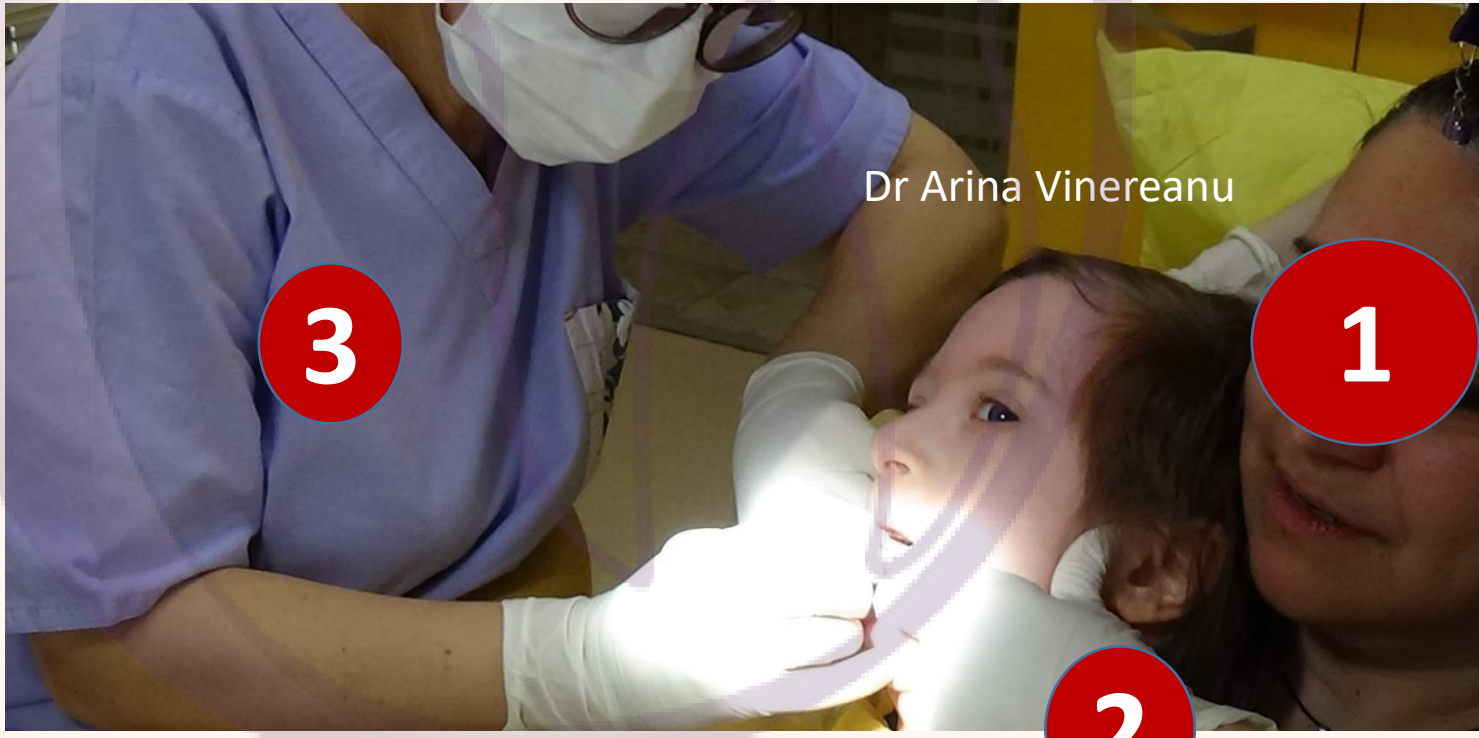
Techniques used:

hold & treat – ! short sessions
minimal intervention / ART; glass-ionomer restorations
rewards

HOLD & TREAT method

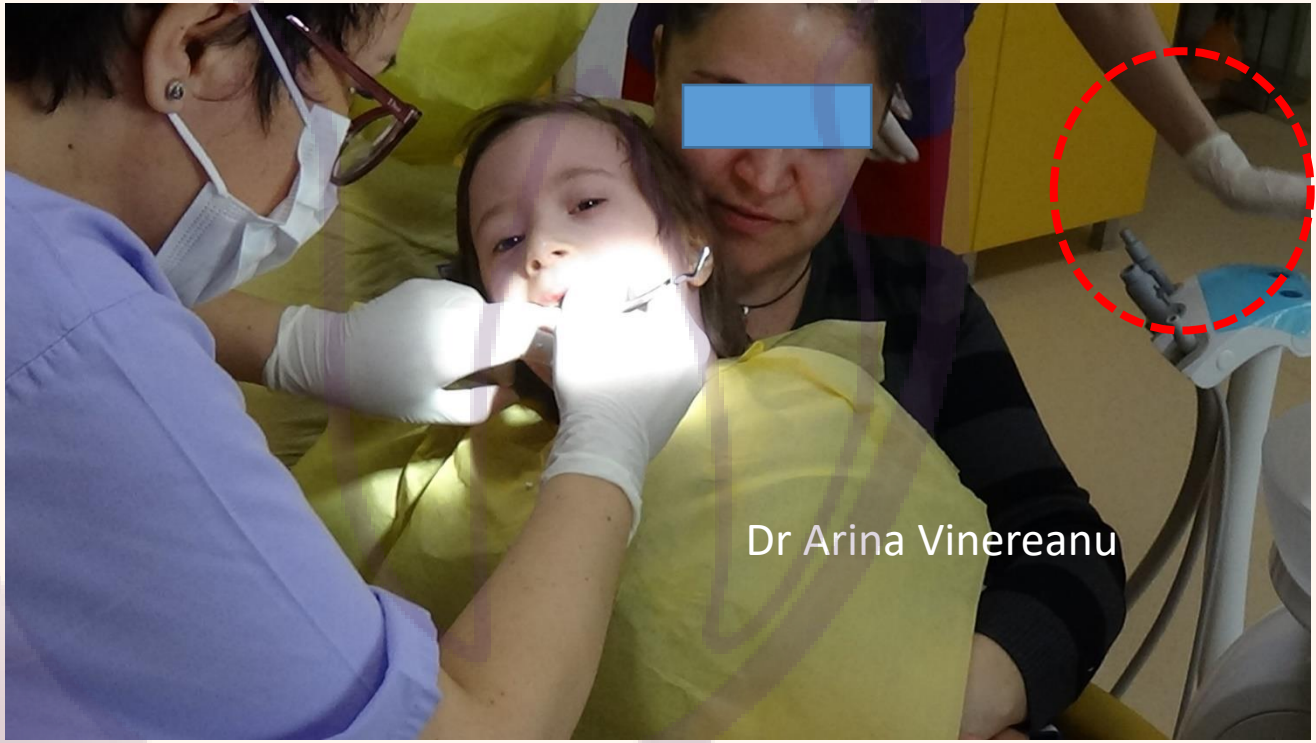
! agreed beforehand with Mom

Physical constraint offered by Mom holding patient on her lap (1)
Additional control by dental nurse (2) and dentist (3)



“Hold” progressively released by nurse, who is however ready to help.

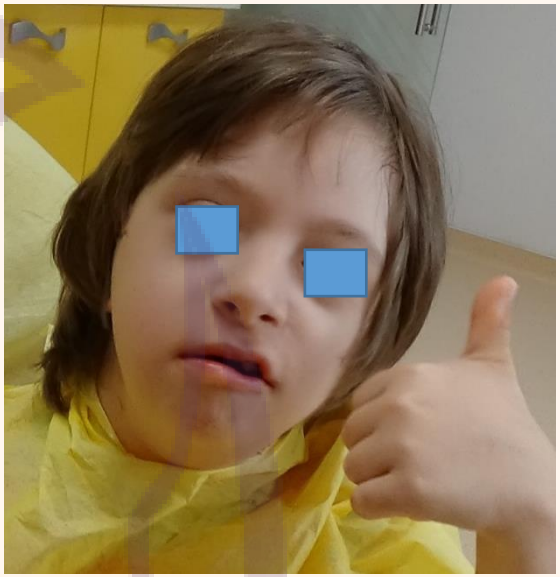
Patient is happier, proud of own improved behaviour.



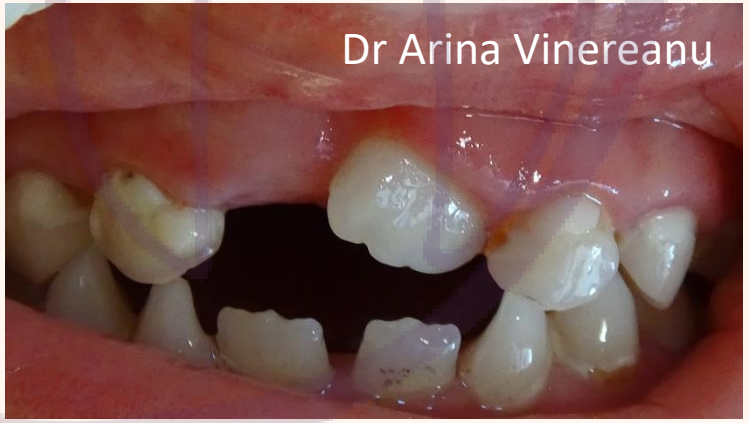
Well-deserved reward follows; good-bye on friendly terms

Age 7:

- better compliance; patient proud after extraction

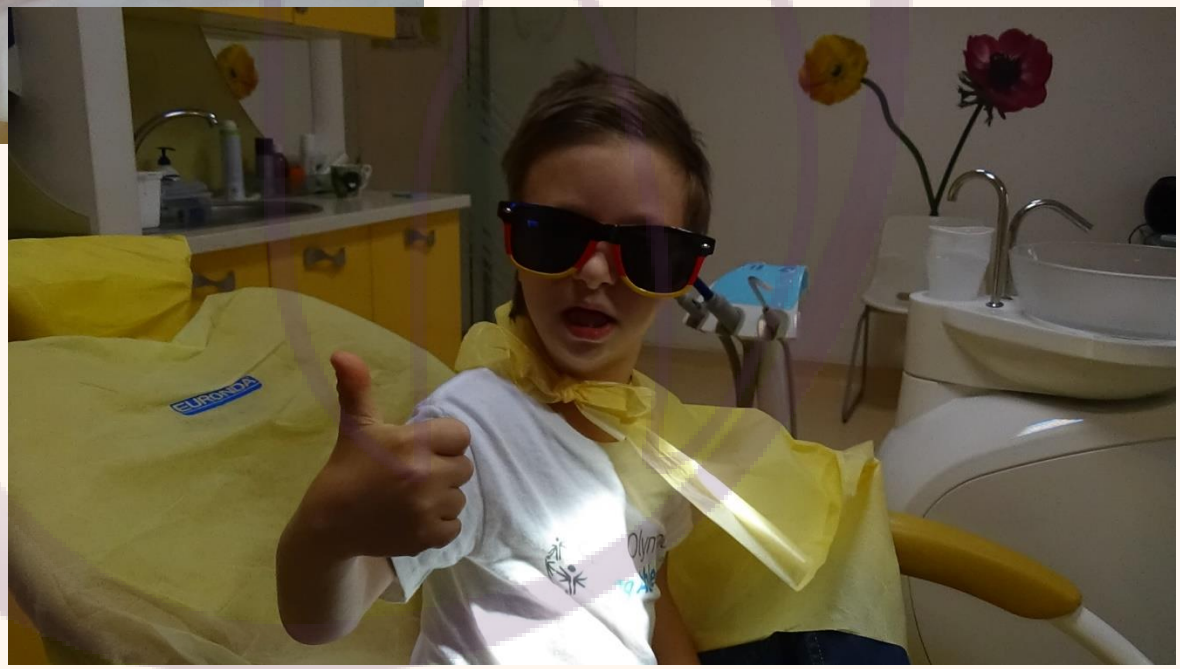


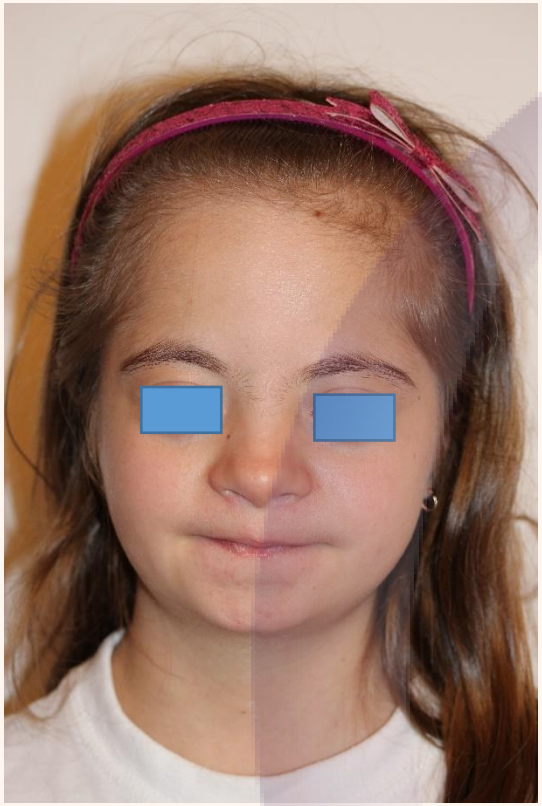
- glass-ionomer restorations in place; improved hygiene;
- **Dental Home** concept works



Age 8:

compliance, hygiene and occlusion visibly improved; patient happy

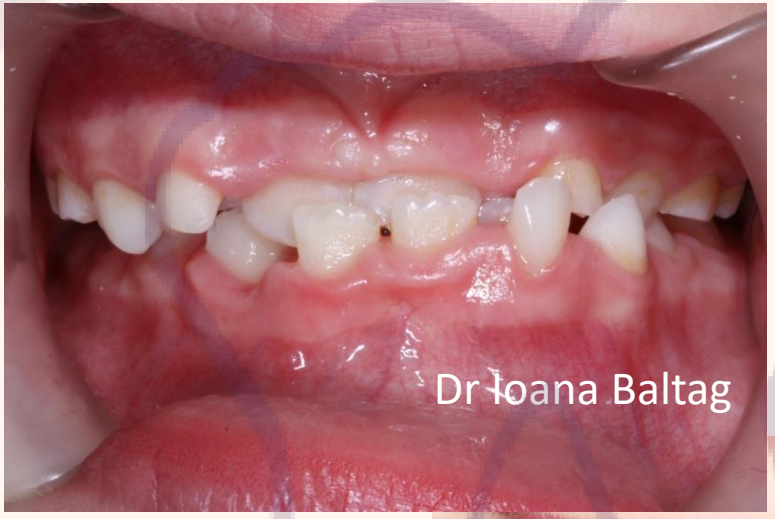


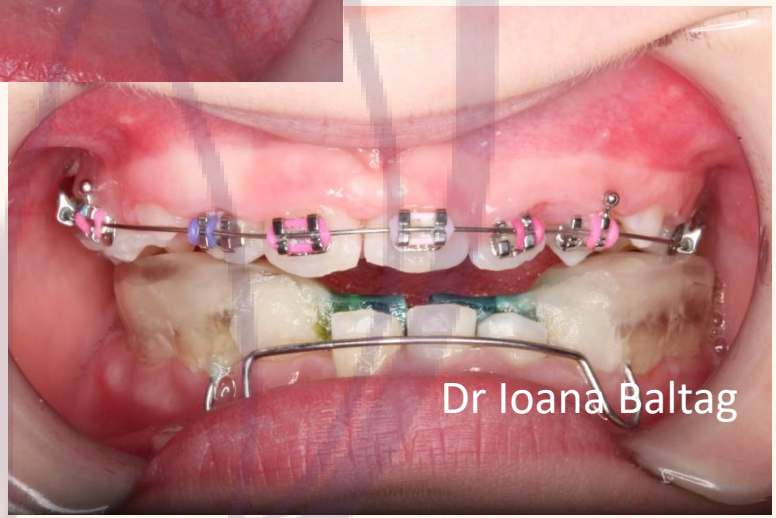


Case 2: Ana, 8 y

Main dg: Down sdr

Orthodontic dg: class III, upper crowding





Initial stage (brackets placing) of treatment needed behaviour management using:

- nitrous sedation 30-20%
- dissociation (hypno-sedation)

Generally good compliance, sometimes varied with mood ☺.
A nice final result was obtained despite some remaining deep bite.
Ana is very rigorous with hygiene and eats healthy; she is also a Special Olympics volunteer.
Mum being a dentist might have helped a bit ☺ .

Case 3: Carol, male, 12y

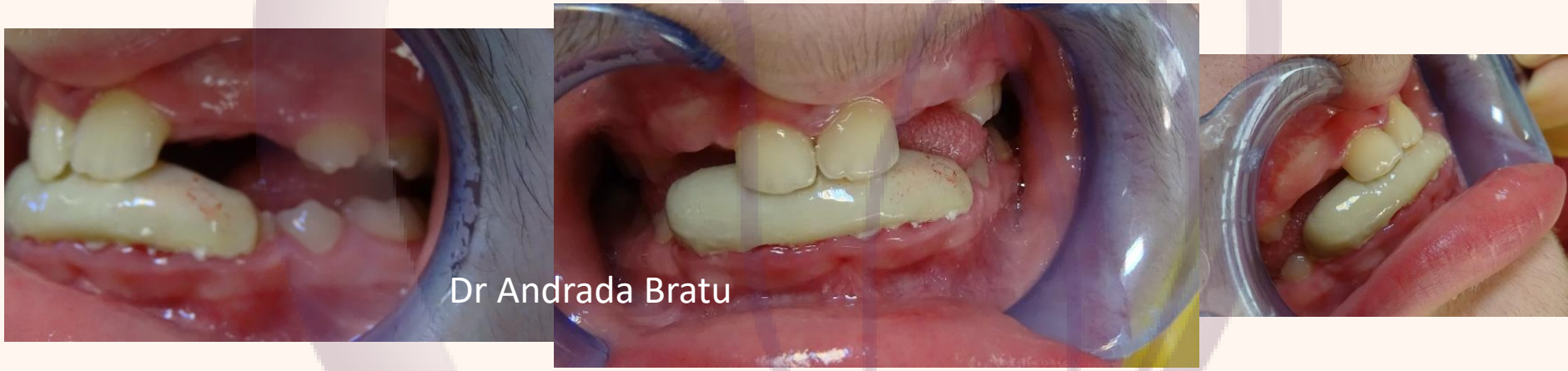
Main dg: Down syndrome

Orthodontic dg: anterior cross-bite, determined by macroglossia and by the bad habit of mandibular propulsion at rest

Overall cooperation**:** Score 4 on Frankl scale

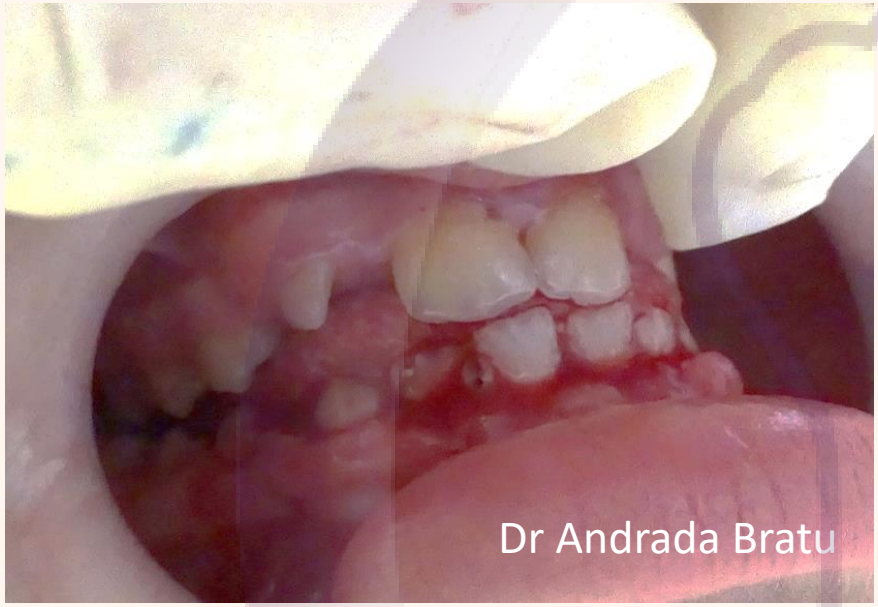
Orthodontic stages:

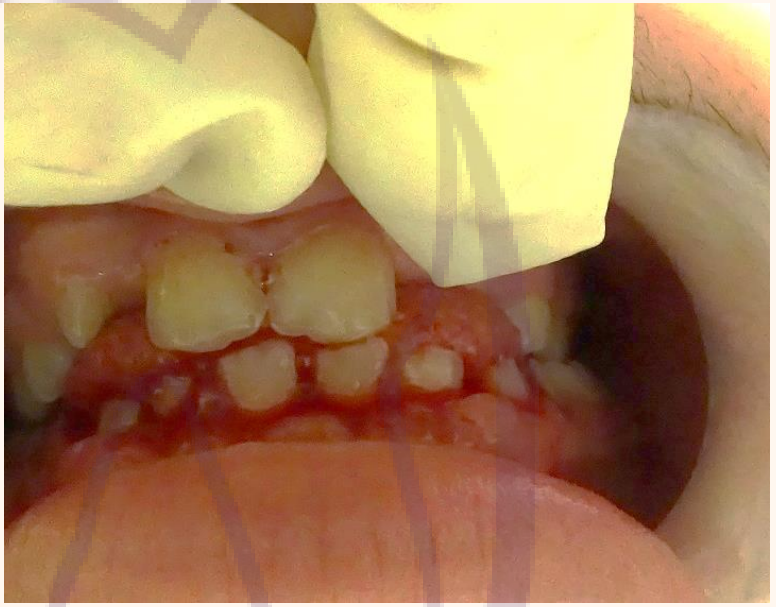
- Lower acrylic inclined bite plate for almost 2 years (with pauses because of the gingival inflammation) => minimum overbite, unstable due to the bad habit of mandible propulsion at rest.



Lower acrylic inclined bite plate cemented on lower front teeth

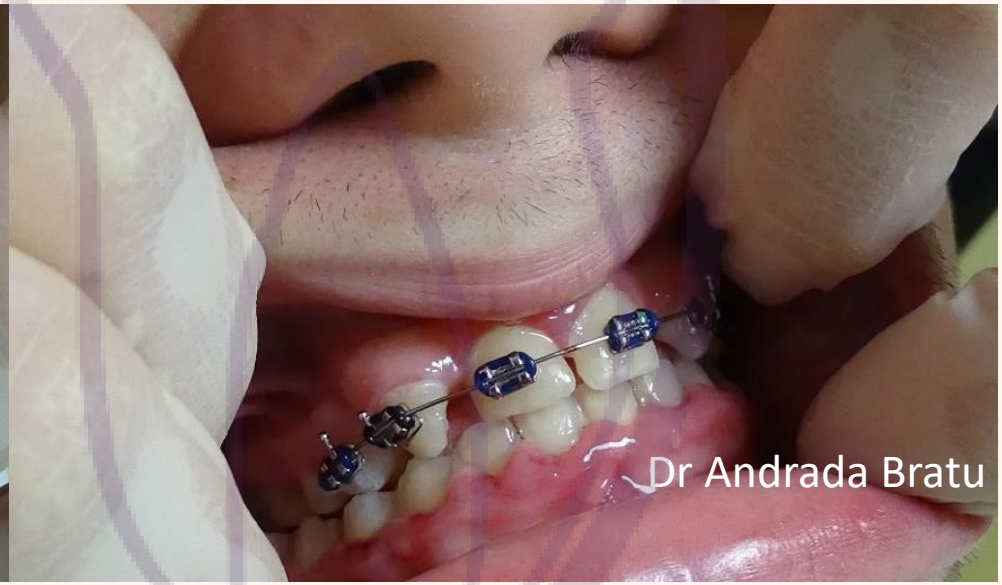
After removal of the lower acrylic inclined bite, a very small, unstable overbite was obtained





- Fixed appliance in the lower arch followed (for 3 months) for space closure.
- A fixed retainer was bonded to the lower front teeth for contention

- An upper fixed partial appliance is subsequently placed to resolve cross-bite between 13 – 43 and derotate 13 and 23.



Good points during treatment:

- Very good collaboration since the beginning of the treatment (Frankl scale = 4)
- Very cheerful patient, always joking – e.g. closes his mouth from time to time pretending to bite the dentist or he moves the dental chair in order to entertain the people in the room.
- Restorations and even endodontics were carried out without difficulty.

Barriers encountered:

- Due to *macroglossia* – patient permanently moves his tongue towards the place where the dentist works (→ difficulties in isolating and in working properly)
- Carol has *small teeth* and the lower acrylic inclined bite plate had to be removed periodically, due to poor oral hygiene
- Due to *poor oral hygiene*, duration of treatment with fixed ortho appliance had to be kept to a minimum; main objectives: correction of anterior cross-bite and obtaining of a minimum overbite to maintain the result.

Orthodontic treatment was carried out with some difficulties due to the characteristics of the general condition; maintenance of proper oral hygiene throughout the orthodontic treatment and afterwards remained a problem.

However, good dental compliance of the patient and good collaboration with the family were very important points in carrying out the treatment.