1. **Splint therapy:** An occlusal splint was inserted in the mandible for six weeks to determine the physiological condylar position or centric before the final treatment planning. The forced bite could thus be demonstrated to its full extent.

2. **Orthodontic therapy:** Orthodontic therapy was used to form and adjust the dental arches relative to each other and to decompen- sate the skeletal dysgnathia. All first premolars were extracted to eliminate crowding and to align both fronts along the midline.

3. **Splint therapy:** Four to six weeks prior to surgery, splint therapy was performed to determine the condylar centric and thus register the temporomandibular joint in a physiological position (centric).

4. **Orthognathic surgery:** Orthognathic surgery was performed in order to correct skeletal dysgnathia. After a model operation, determination of the translocation path and production of the splint in the target occlusion, the preliminary surgical mandibular translocation was carried out by means of sagittal split according to Obwegeser–Dal Pont.

5. **Orthodontic therapy:** Orthodontic therapy was used to close the lateral open occlusion and for fine adjustment of the occlusion. The open occlusion was to be closed only through the extrusion of the maxillary lateral incisors and not by the intrusion of the fronts.

6. **Retention:** A 3–3 retainer was fixed in the mandible. A bimaxillary device was used for retention, allowing for the adaptation of the musculature in the new mandibular position.

**Results**

Figures 6a to 6c show the situation in occlusion and after closure of the lateral open bite, a neutral occlusion and correct midline with physiological sagittal and vertical overjet. The extra-oral photos show a harmonic three-way split of the face in the vertical axis, which was achieved through the surgical elongation of the lower face, and a harmonic profile in the sagittal axis. The mouth profile is harmonious, with relaxed lip closure and a well-balanced supravental (Fig. 7).

Figs. 8a, b: The cephalometric image after conclusion of treatment shows a harmonious ratio between the skeletal structures in the sagittal axis and in the vertical axis (a), as well as a harmonization in the soft-tissue profile between the upper and lower face (b).

The FRS shows the changes in the parameters that arose as a result of the enlargement of the gonion angle. The gonion angle was increased surgically by 8 degrees. Accordingly, the mandibular slope was increased, which led to an enlargement of the interbase angle (around 5 degrees).

There is harmonization in the vertical arrangement of the bony and soft-tissue profiles. The disharmony of the lower face has been corrected, so that the ratio of Sn-Stm to Stm-Me’ is nearly 1:2 and that of Sn-Li to Li-Me’ is 1:1 (Figs. 8a, b; Tables I, II).

(Note: A complete list of references is available from the publisher.)