

Are semi-adjustable articulators (SAA) really necessary in restorative dentistry

By João Palmieri
CD MCS Esp.
Brazil



Probably, and unfortunately, most clinicians prescind the use of a SAA. They point they require a time consumption technic and can work properly without them. Maybe because they are not trained to use them for diagnosis. In the sequence of photos presented here, we intent to show how important is to set a Centric Relation (CR) with a pair of models and how indispensable is the use of SAA before planning any treatment involving the patient's bite.



Figure 1 A, B and C - A pair of casts during a Maximum Intercuspation (MI) assembled in a SAA. Observe at figure 1A, that extruded right second molar. It doesn't participate of patient's occlusion. In figure 1B, with a frontal view we can see a good alignment of teeth, but the small amplitude of the overbite and apparent tip destruction of upper incisors can be observed. In picture 1C, beyond the upper left first molar missing, we can observe how the tendency of a Angle's Class III malocclusion is more prominent.

Whenever we consider only the teeth position, we can be easily betrayed by a false mandibular position. This will invariably lead us to an erroneous diagnosis. And any treatment based in a wrong interpretation of reality will lead us to a erroneous treatment.



Figure 2A, B and C - The same pair of models at the same SAA, but now in the CR arch closure. At picture 2A is clear that the extruded second right second molar is interfering in the ideal mandibular closure. To avoid this isolated contact, the mandible is protruded and assumes a false Angle's class III malocclusion position. The compensatory inclination of the lower anterior teeth indicates the orthodontic treatment applied to the patient probably neglected the CR position of the mandible. At picture 2B, the dental wear of lower incisors and canines are more evident.

The situation represented by this case is more common in the daily clinic routine than we imagine. The patient is now looking for an occlusal reconstruction. If we continue to ignore the orthopedic mandibular position, probably our treatment will not "fit" in the patient's mouth.

The combination of a CR registration with a SAA allow us to start our treatment from the temporomandibular perspective and avoid be betrayed by the teeth position.

