



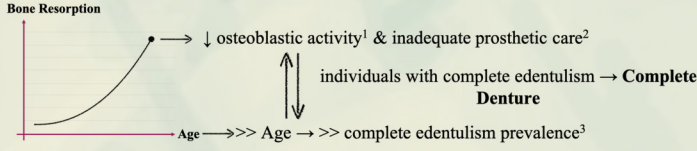
# PERSONALIZED COMPLETE DENTURE: THE USE OF SEMIADJUSTABLE ARTICULATOR FOR FLAT RIDGE (A CASE REPORT)

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## INTRODUCTION



**Complete denture** → improve the stomatognathic function, aesthetic and maintaining patient's oral health.<sup>4</sup>

**Semi-adjustable articulator** → produce dentures that are close to the patient's occlusion and articulation so as to increase patient comfort.<sup>5</sup>

### Objective

To explain the case management of complete edentulous flat ridge using a semi-adjustable articulator.

## DISCUSSION

The success of a complete denture is based on its ability to fulfil basic principles relating to support, stability and retention. This can be difficult to achieve in cases of flat ridge. Complete denture with a flat ridge needs good management in the fabrication process.<sup>1,4</sup>

### Flattening bone area in mandibular left ridge?

- Made by an illegal dental practice → **inadequate complete denture design.**
- The resorption rate → 3-4 times greater than the maxillary due to the smaller denture bearing area.<sup>6,7</sup>

### Centric tray?

initial bite record → **patient's vertical height reference** → requires minimal adjustment.<sup>8,9</sup>

### Semi-adjustable articulator with facebow transfer?

Plane & angle orientation adjusted according to the patient's anatomical & physiological conditions → evaluation of the patient's more complex occlusal interference → **produce an individualized prosthesis.**<sup>10</sup>

### Suction effective technique for final impression?

**Obtain an adequate individual denture border seal** due to the patient-oriented active movement of muscle trimming → **stable and retentive complete denture.**<sup>9,10</sup>

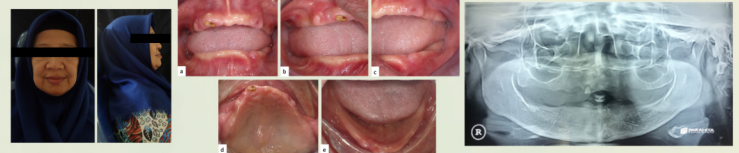
### Intraoral gothic arch Tracing with Gnathometer-M?

a measurable method; the entire range of mandibular movement is recorded on a registration plate to determine the horizontal jaw relation → **minimize the presence of occlusal discrepancies** which later need to be corrected after the acrylic denture is placed on the patient.<sup>11,12</sup>

At the end of the treatment the patient was satisfied with the treatment → the complete denture was **stable, retentive, & functionally and aesthetically adequate.** There was **good intimate contact** between the complete denture & the supporting tissue due to the accurate & optimal impression technique and the principle of fabricate a complete dentures using semi-adjustable articulator.

## CASE REPORT & CASE MANAGEMENT

A 69-years-old female patient, came to Universitas Airlangga Dental Hospital with the chief complaint to **replace the old complete denture made by an illegal dental practice** because it was **uncomfortable and currently unusable.** There was a **gangrene radix on #12 & flat ridge in the left posterior region of the mandible.**



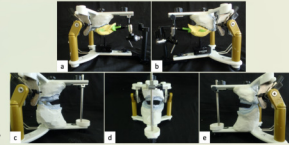
### 1

- Preliminary Impression → Irreversible Hydrocolloid
- Established the **preliminary vertical dimension of occlusion**
- Preliminary bite registration** → Centric Tray
- Facebow transfer** → UTS on centric tray
- #12 tooth extraction



### Lab

- Impression casting → type III dental stone
- Mounted preliminary casts into Semi-adjustable articulator Stratos 300® → Centric Tray & Facebow
- Fabricated an **individual tray with bite rims mount.**



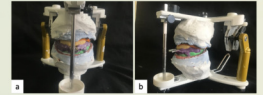
### 2

- Border molding & Final Impression → **Suction Effective Technique**
- Vertical dimension of occlusion correction
- Established the horizontal relations → **gothic arch tracing with gnathometer M.**
- Facebow transfer** → UTS on individual tray
- Tooth selection



### Lab

- Boxing & final impression casting → type III dental stone
- Mounted final casts into Semi-adjustable articulator Stratos 2000® → Individual Tray & Facebow
- Setting the denture teeth → **2D Template**



### 3

- Wax denture try in
- Teeth arrangement correction



### Lab

- Denture contouring
- Acrylic processing
- Denture polishing

### 4

- Denture try in
- Occlusion correction
- Final polishing
- Denture insertion



## CONCLUSION

**Fabrication of complete dentures using a semi-adjustable articulator produces an optimal dentures and increases patient satisfaction.**

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