IMPLANTS
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Getting the SRA Abutment Right in Implant-Supported Restorations

By Ricardo Mitrani (/spear-review/author/ricardo-mitrani/) on December 20, 2022 | (/bookmarks/bookmark/39975) SHARE

A common and integral component in the fabrication of an implant (https://www.speareducation.com/spear-review/category/implants)-supported fixed dental prosthesis or fixed hybrid prosthesis is the “SRA abutment”—also known as the transmucosal abutment. This component is designed to provide two key features:

1. Elevating the platform of the implant by bringing the prosthetic connection to an equi-gingival level, therefore facilitating all subsequent processes (securing the impression copings, validation of the passive fit of the restorations, seating of the restorations).
2. Correcting the angulation of the implant (https://campus.speareducation.com/seminars/implants-the-surgical-restorative-connection/details/syllabus/). It is common to tilt the implant deliberately at an angle to optimize the antero-posterior (AP) spread.

Often, during surgery, the treating team may choose a specific set of transmucosal (https://pubmed.ncbi.nlm.nih.gov/32064837/) or SRA abutments, as these vary in height and angulation (Straight, 17 degrees, and 30 degrees), then fabricate the provisional restoration and wait for the implants to be fully osseointegrated prior to the fabrication of the definitive prosthesis.

Usually, straight SRA abutments are used with anterior implants when they are parallel, but it is not uncommon during the prosthetic phase of treatment for the restorative dentist to realize that the position of the screw access hole could be optimized by changing the angulation of the SRA abutments. Ideally, the treating team aims to have the access holes coming out of the cingulum in anterior implants, and the center of the occlusal area in posterior implants.

This visual essay shows, through a series of images, the fabrication of a maxillary implant-supported fixed dental prosthesis where the SRA abutments of the anterior implants (https://campus.speareducation.com/workshops/implant-restorative-dentistry/details/syllabus/) were changed to optimize the prosthetic design of the definitive implant-supported fixed dental prosthesis.

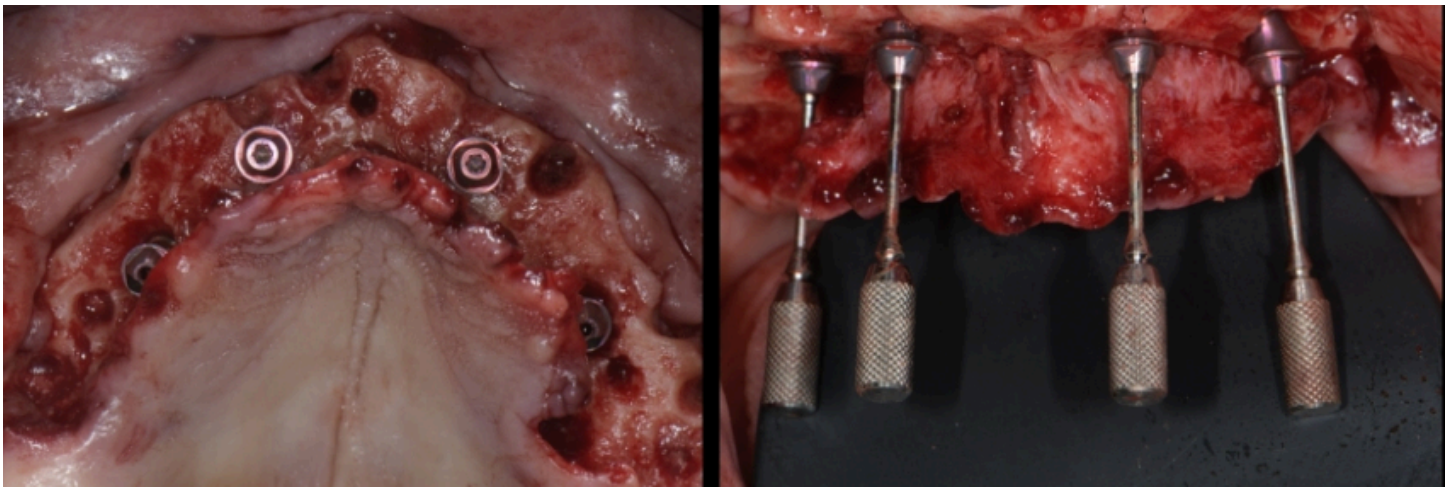

Figure 1: 30-degree angled SRA placed on the distally angled implants and 0-degree straight SRA placed on the anterior parallel implants.

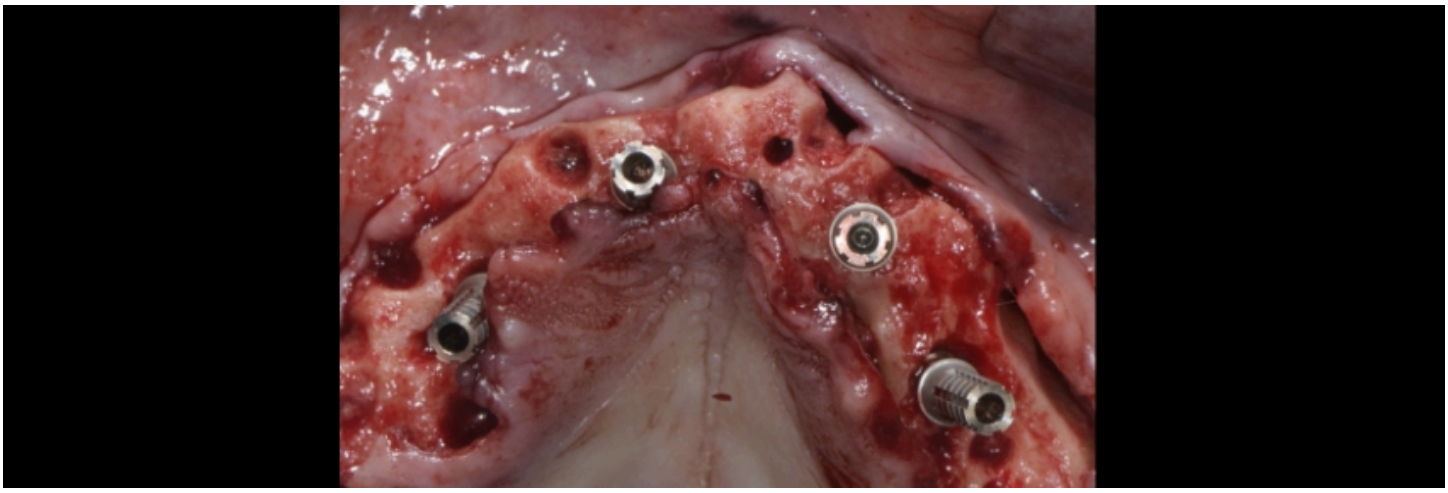

Figure 2: Titanium cylinders placed on the 4 SRA abutments.

Figure 3: Traditional conversion prosthesis made from a complete denture.

Figure 4: Provisional prosthesis before insertion.

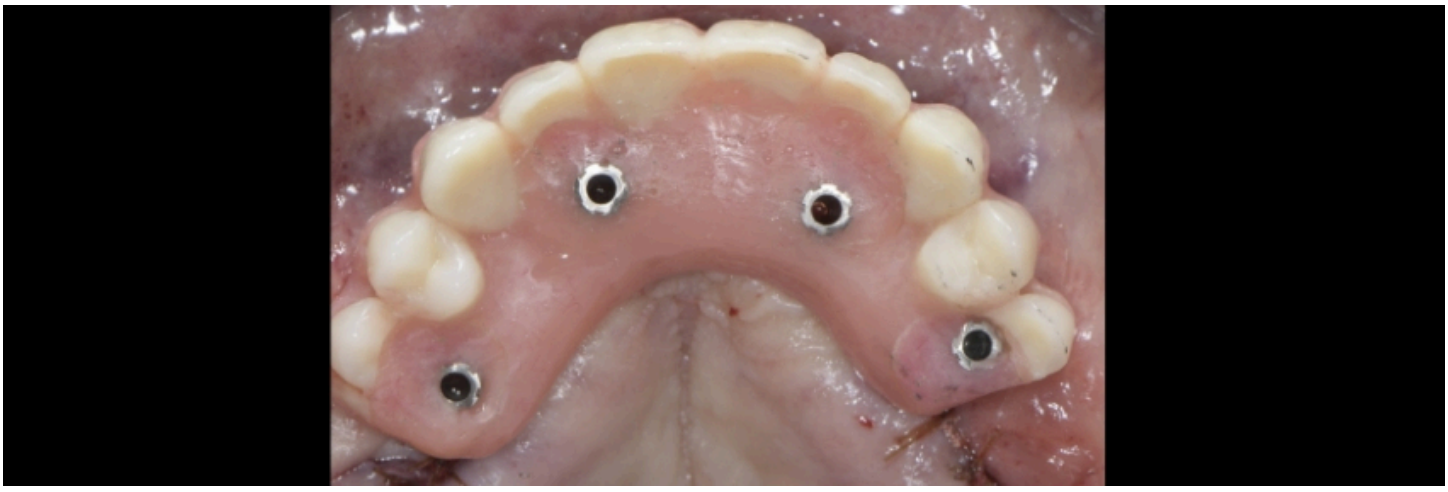

Figure 5: Occlusal view of immediately loaded prosthesis after insertion.

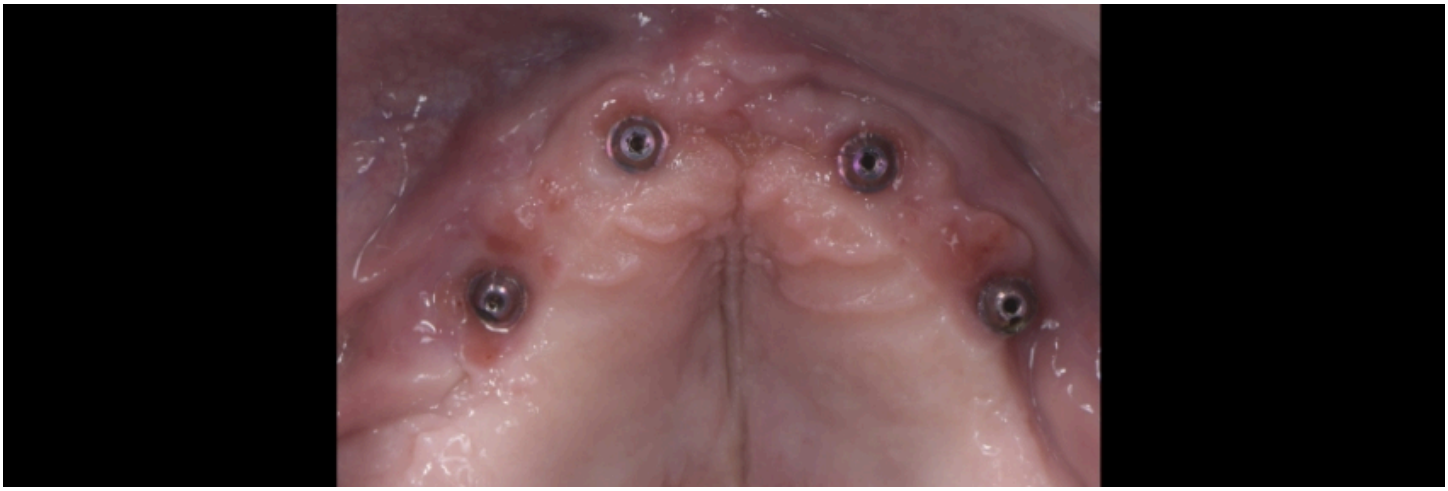

Figure 6: Occlusal view of soft tissue maturation after 3 months of healing.

Figure 7: CAD/CAM milled prototype provisional.

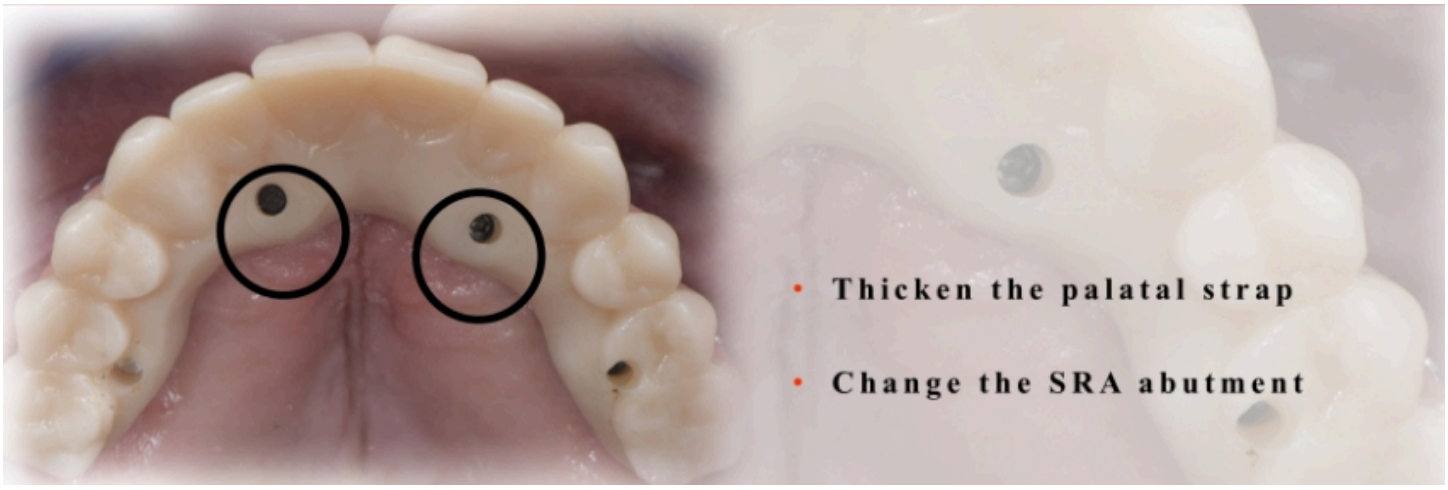

Figure 8: Note the access holes to the anterior implants.

If we decide to alter the angulation of the SRA abutments, we can position the access hole more anteriorly, thus increasing the palatal thickness and improving the biomechanics and hygiene access.

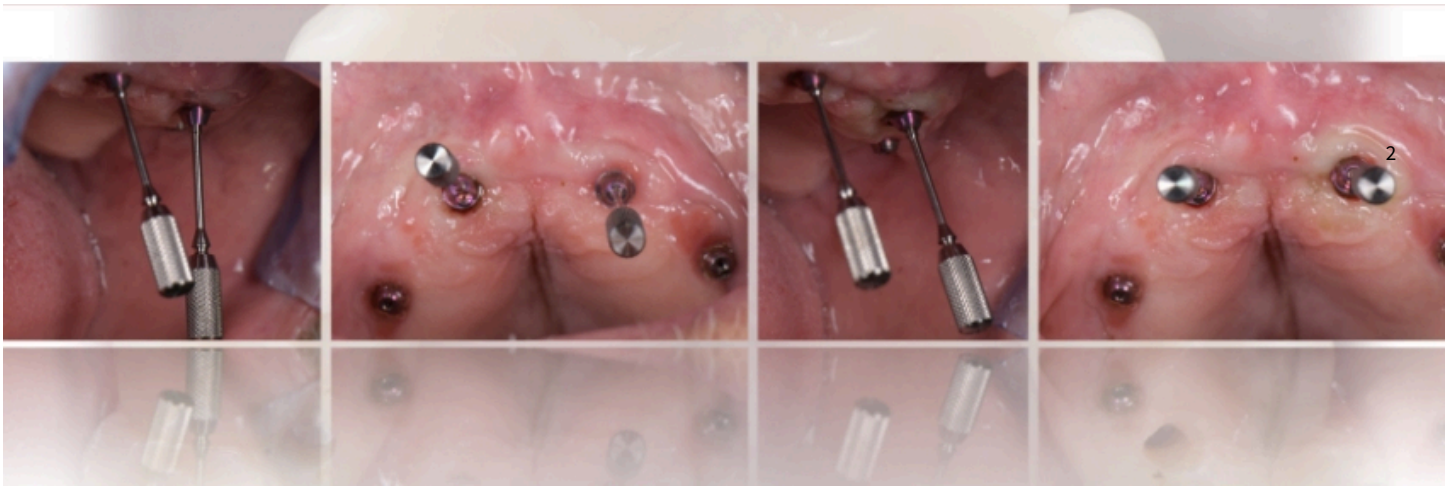

Figure 9: Exchanging the 0-degree anterior SRA abutments for 17-degree SRA abutments with anterior angulation.

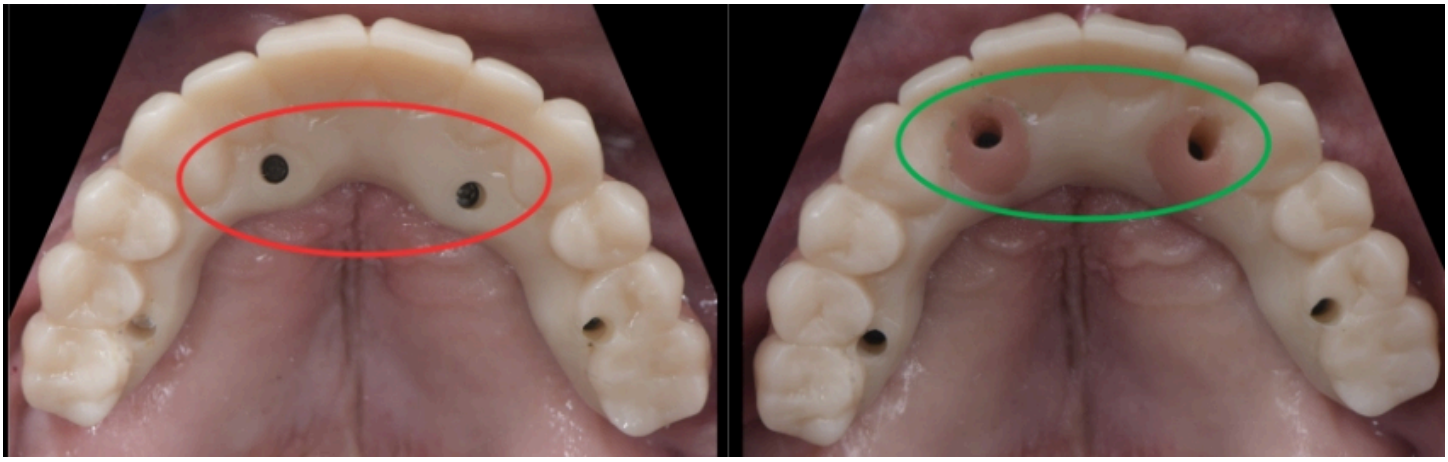

Figure 10: Note the difference in anterior screw access holes.

Figure 11: Definitive CAD/CAM zirconia prosthesis.

Figure 12: Intraoral view of the definitive prosthesis.

Figure 13: Intraoral view of the definitive prosthesis — note the final position of the screw access holes.

In this visual essay, we have outlined the steps in the fabrication of a maxillary full arch implant-supported prosthesis (/spear-review/2022/04/full-arch-implant-supported-prosthesis) solution where the SRA abutment needs to be changed because the orientation of the screw access hole in the provisional restorations seems too palatal from an ideal position, thereby underlining the importance of analyzing these aspects during the provisional phase and correcting the angulation of them in order to provide a more ideal design and increase the long term predictability of the prosthetics.

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