



## "Toronto Snap": a new technique in fixed implant prosthodontics.

Bortolini S<sup>1\*</sup>, Bianchi A<sup>2</sup>, Berzaghi A<sup>3</sup>, Natali A<sup>4</sup>, Nanni M<sup>5</sup>, Consolo U<sup>6</sup>

- 1 - DDS, Associate Professor, University of Modena and Reggio Emilia.
- 2 - DDS, MSc, PhD, University of Modena and Reggio Emilia.
- 3 - DDS, PhD, University of Modena and Reggio Emilia.
- 4 - DDS, University of Modena and Reggio Emilia.
- 5 - MD, DDS, University of Modena and Reggio Emilia.
- 6 - MD, ChM, Full Professor, University of Modena and Reggio Emilia.

### PURPOSE

The aim of this case series is to introduce an innovative technique that eliminates the screw access holes in fixed prosthodontics on dental implants, without resorting to cement. Further research is needed to evaluate long-term success rates of this new prosthetic solution, that we called "Toronto Snap" (TS).

### METHODS AND MATERIALS

Twenty-four patients were in need for partial or complete fixed restorations on implants. After conventional implant surgery (*EVEN implants, Mech & Human srl, Albignasego, Italy*) we adopted the immediate loading protocol in all cases, when the primary stability was homogeneously achieved. Our customized abutments have been screwed into all the placed fixtures, and acetal resin rings called "Seeger", engineered specifically to assist the screws in retaining and securing the prostheses on the abutments, have been applied into the prostheses bases. We waited 12 months to verify whether the Seegers could assure stability and retention without any screw or cement.

### RESULTS

We faced no detachments or complications during these 12 months, and our TS worked properly even in full-arch restorations, similarly to conventional screwed implant bridges. X-ray exams prove tight connection between the abutments and the prostheses in absence of the screws. No need to switch the rehabilitations to completely fixed ones by adding screws inside the threaded head of the abutments was found during the observation period.

### CONCLUSION

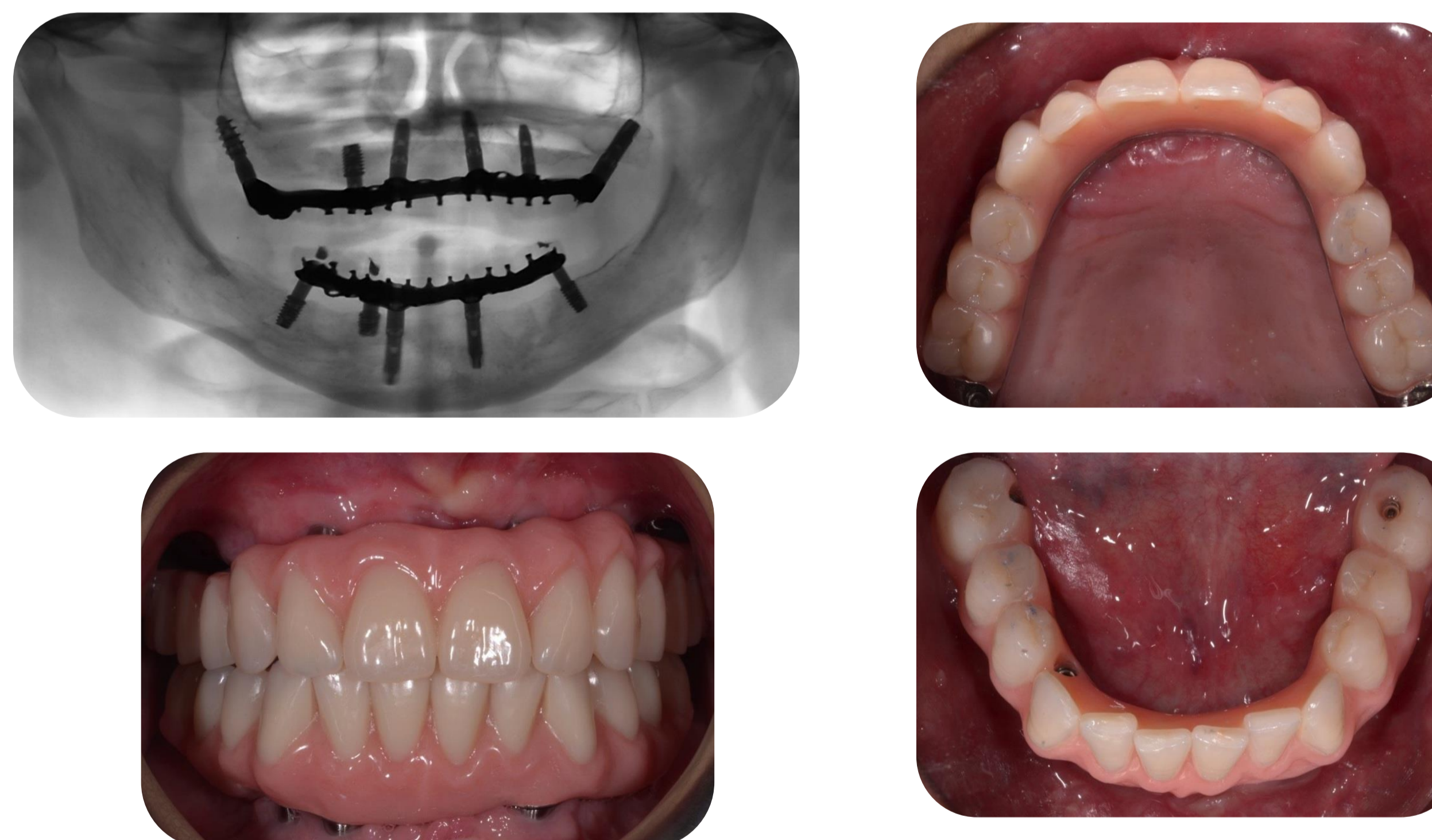
Within the limitations of this clinical trial, the use of Seegers alone turned out to be a successful solution in terms of retention, aesthetics and convenience. Since the Seegers take advantage of the divergency between the implants and each guarantees 8 kilograms of retentive potential, TS could be a viable option for fixed restorations on multiple or tilted fixtures, avoiding vestibular screw access holes without cement. In the future, we intend to test TS for longer time in our patients.



Figgs 1-4: Application and activation of "Seeger" springs into the prostheses bases.



Figgs 5-6: We can maintain every screw access hole open in case of future need, but Seegers only provide the retention in our clinical trial.



Figgs 7-10: Only a few screw access holes are visible on the occlusal aspect.

## Toronto Bridge



## Toronto Snap



Corresponding author: [sergio.bortolini@unimore.it](mailto:sergio.bortolini@unimore.it)

Download the e-book:



Watch the video:



MECH & HUMAN

Hi-tech Biomedical Technologies