

TO SPLINT OR TO EXTRACT? OLD QUESTION WITH NEW DISCUSSIONS.

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Introduction

Dental mobility due to the loss of tooth support structures in chronic periodontitis leads to their subsequent extraction negatively affecting the function of mastication, aesthetics and patient comfort. Splinting mobile teeth favors the restoration of tissues and function of periodontium.

Purpose

Increasing the effectiveness of complex treatment of patients with chronic generalized periodontitis

Material and methods

23 patients (11 m., 12 f.) aged 38-63 years with chronic generalized periodontitis of varying degrees were examined clinically and para-clinically. For non-invasive direct immobilization of mobile teeth polyethylene fiber InFibra (Italy), applied on the vestibular surface of the upper and / or lower frontal teeth, was used.

InFibra is made of long longitudinal white and high crystallized polyethylene fibers that give high mechanical characteristics. InFibra has been developed for “metal free” dentistry. The special interlacing enables a net cut and the complete padding with all flowable resin composites unfilled and acrylic resin.

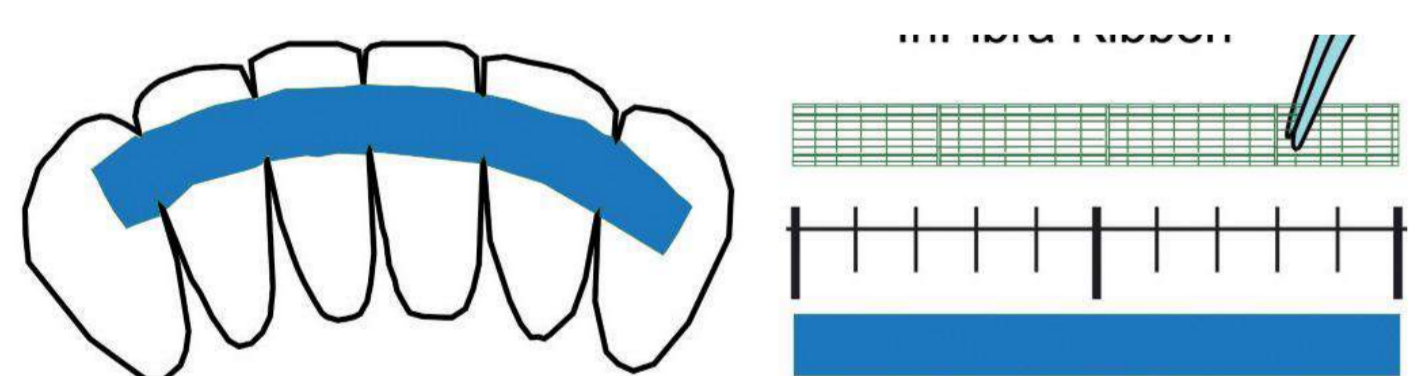


Figure 1. Aluminum foil to build a faithful model

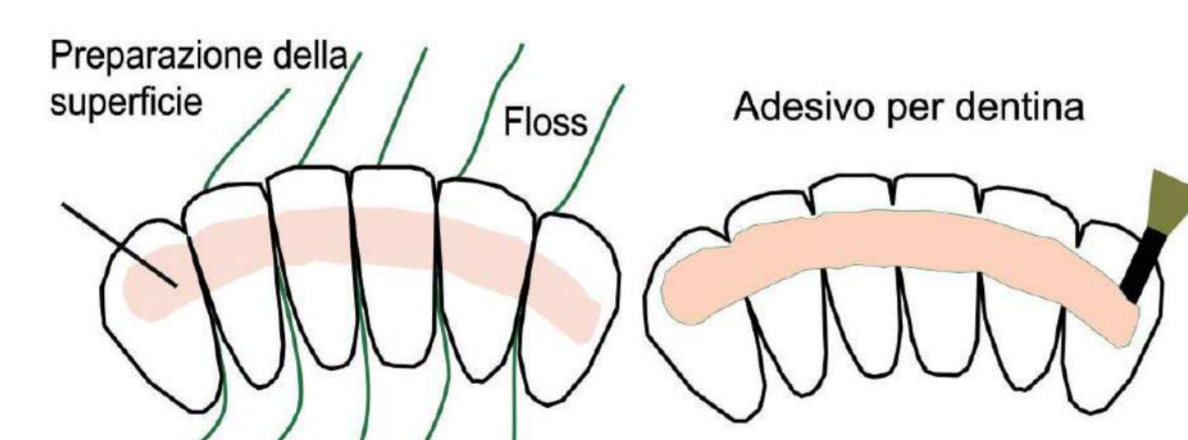


Figure 2. Mechanical Properties Elasticity modulus 95Gpa Tensile strength 3,0 Gpa Specific weight 0,97 g/cm³ Percentage of elongation 2,4% Water absorption meno del 0,9% Melting temperature 145 °C

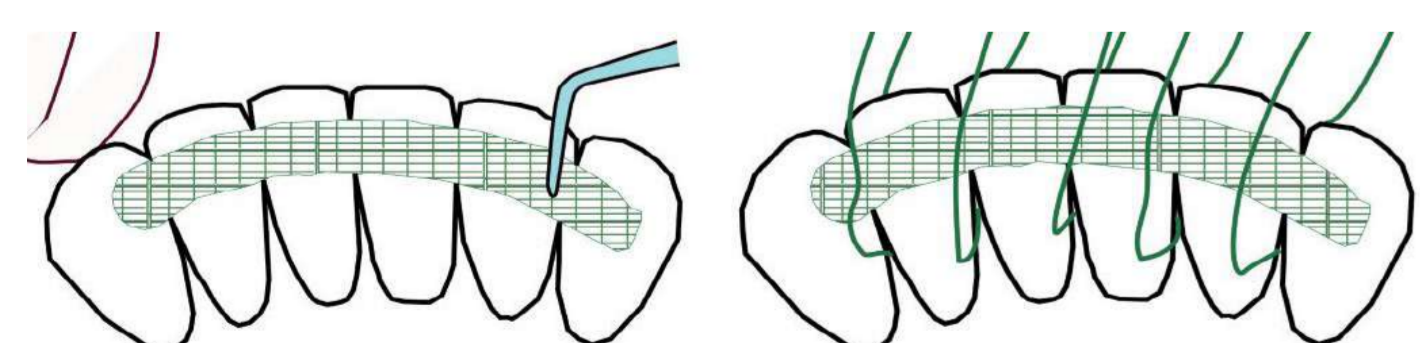


Figure 3. Adapt the ribbon with bonding to the contour of the teeth

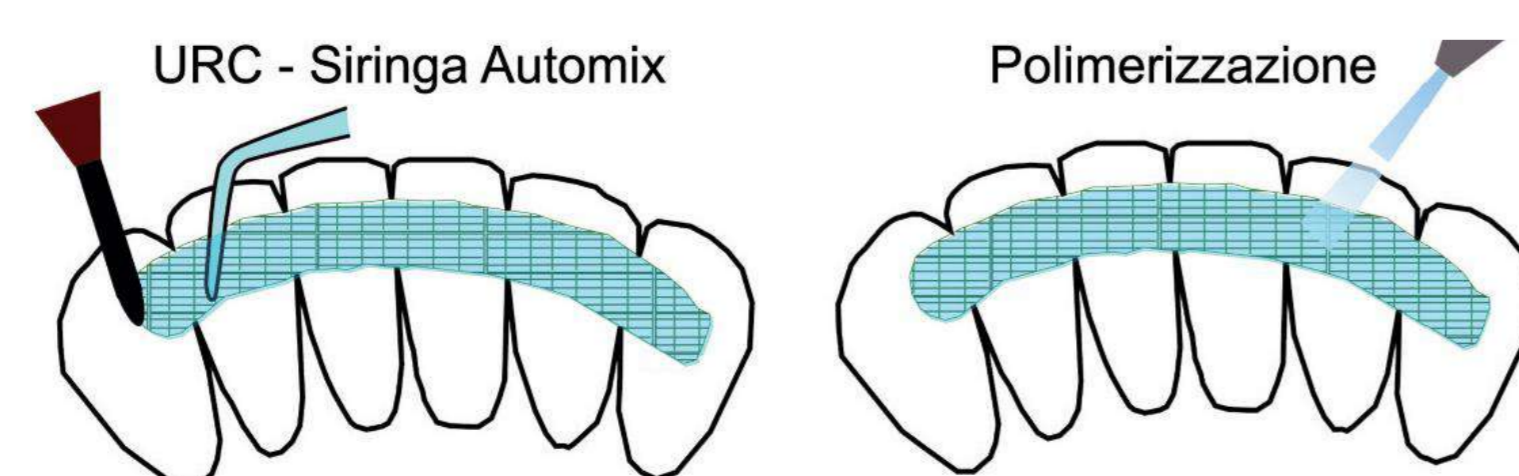


Figure 4. Cover the fibers by paying attention to the interproximal areas.

Results

Clinical and para-clinical examination of patients included in the study allowed the diagnosis of generalized chronic periodontitis of varying degrees. To stop the pathological mobility of teeth in complex treatment of patients, the adhesive immobilization with reinforcement of composite material with polyethylene fibers InFibra fixed on the vestibular surface of the toothed teeth was included. Repeated examination after 6 and 12 months shown disappearance of discomfort during eating due to stopping dental mobility. After 12 months after immobilization was marked decreasing in OHI-S and IP indices and stopping radiologically determined atrophic processes of the alveolar bone.



Figure 5-7. clinical situation before treatment



Figure 4. clinical situation after treatment

Table 1. Distribution of the main indicators of the severity of periodontitis symptoms in dynamics

Group of patients	Group of patients with mild degree of chronic periodontitis			Group of patients with medium degree of chronic periodontitis		
	Bleeding	Depth of periodontal pockets,mm	Degree of pathological mobility	Bleeding	Depth of periodontal pockets,mm	Degree of pathological mobility
Before treatment	During teeth brushing, using hard food	2,00;23	1;1	spontaneously, at use of non-solid food	5,00;2	1;1
After treatment	spontaneously, during teeth brushing	1,00;15	-	only at solid and hard food eating	3,00;5	-

Conclusions

Excellent technical and handling properties, the consistency of the shape, ensured by the unique weave – Lock-stitched leno – weave lens made of polyethylene fibers InFibra allow to use it at splinting teeth with pathological mobility, even grade III-IV increasing the effectiveness of complex treatment

Keywords

periodontitis, pathological mobility, periodontal immobilization.