



# INTERRADICULAR LESIONS: PERIODONTAL OR IMPLANT THERAPY?

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## INTRODUCTION

Since '50 years some periodontal surgery techniques, as root resection and bicuspidization, were considered valid therapeutic methods when the regenerative surgery was not considered suitable for the survival of a dental element affected by specific periodontal lesions, endo- periodontal or others. Now, estimated the numerous limitations, many variables, the rates of failure and, not least, the oral surgeon's ability requested, the implant surgery is considered as a valid alternative to periodontal surgery. The two treatments options described above are presented with two clinical cases.

### PARODONTAL SURGERY

CLINICAL CASE

Rx of 3.6 and 3.7 injury

Clinical view of 3.6 and 3.7 injury

Vestibular and occlusal clinical situation after bicuspidization of 3.6 and root resection of 3.7

Rx after surgery

Vestibular and occlusal view of the bridge in situ

Final rx with bridge in situ

### IMPLANT SURGERY

CLINICAL CASE

Rx of 2.6 injury

Clinical view of 2.6 injury

Extraction of 2.6

2.6 implant

Rx with implant

Clinical view of implant

Clinical view of the

Final clinical view

For a more scientific evaluation of the surgical option, rates of failure should be known by several clinicians. Currently both the surgical options are used in clinical practice, according to operator's guidelines, without regarding the advantages and disadvantages of both techniques.

### RATES OF FAILURE OF PARODONTAL SURGERY TREATMENT

Authors	Year	Number of esaminated teeth	Missing teeth (%)	Follow-up (years)
Hamp <sup>1</sup>	1975	87	0	5
Klavan <sup>2</sup>	1975	34	8.8 %	1-7
Langer <sup>3</sup>	1981	100	38.0 %	10
Erpenstein <sup>4</sup>	1983	34	20.6 %	3
Bühler <sup>5</sup>	1988	28	32.1 %	10
Camevale <sup>6</sup>	1991	488	17.2 %	3-11
Basten <sup>7</sup>	1996	49	8.0 %	2-23
Blomlöf <sup>8</sup>	1997	146	32.2 %	10
Svärdström <sup>9</sup>	2001	47	11.0 %	8-12
Fugazzotto <sup>10</sup>	2001	701	3.2 %	15
Park <sup>11</sup>	2009	342	29.8 %	2-10
Zafiropoulos <sup>12</sup>	2009	56	21.4 %	4-8

### RATES OF FAILURE OF IMPLANT SURGERY TREATMENT

Authors	Year	Number of implants	Missing implants (%)	Follow-up (years)
Schmitt e Zarb <sup>13</sup>	1993	5	0	2-7
Laney <sup>14</sup>	1994	5	0	3
Cordioli <sup>15</sup>	1994	20	10.0 %	0.5-5
Engquist <sup>16</sup>	1995	1	0	1-5
Haas <sup>17</sup>	1995	10	0	1-3
Becker e Becker <sup>18</sup>	1995	24	4.3 %	2
Avivi-Arber <sup>19</sup>	1996	6	0	1-8
Balshi <sup>20</sup>	1996	72	1.4 %	1-3
Bahat <sup>21</sup>	1996	54	3.7 %	0.3-2
Kemppainen <sup>22</sup>	1997	11	0	1
Levine <sup>23</sup>	1997	94	3.2 %	1
Bahat <sup>24</sup>	2000	660	6.6 %	5-12
Fugazzotto <sup>10</sup>	2001	1472	3.0 %	> 13
Levine <sup>25</sup>	2002	441	0.8 %	1-6.5
Levin <sup>26</sup>	2006	88	7.4 %	0.5-10
Zafiropoulos <sup>12</sup>	2009	36	2.8 %	5-7

## RESULTS

The data in the literature about the use of two different surgical approaches (periodontal and implant), show that the rates of failure is higher in periodontal therapy (0-38%) than in implant therapy (0-10%). The results reported by many Authors, show how complications occur less frequently after placement of an implant, rather than after the execution of a root resection or bicuspidization of a dental element.

## CONCLUSIONS

It's difficult to give absolute guidelines in certain clinical situations, which should consider not only results reported in the literature, but also the capacity, ability and mindset of the operator. Nowadays also the economic side does not indicate one of the two methods, because the costs of both appear to be about the same. Perhaps the patient's bone could influence the treatment choices: if the simple post-extraction implant is not sufficient to solve the problem and is necessary to use advanced techniques (Maxillary sinus surgical lift or volumetric expansion of the crest bone), is perhaps preferable the traditional periodontal surgery. Regarding the follow up, the data of implant therapy are more short term than those relating to periodontal one (up to 33 years). Every time we are dealing with a case needing surgery, the question is: PERIODONTAL or IMPLANT THERAPY? A simple question that hasn't a single and simple answer.

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