

Impacted Teeth Auto-transplantation After Failure of Orthodontic Extrusion (A Retrospective 5 year Follow Up)

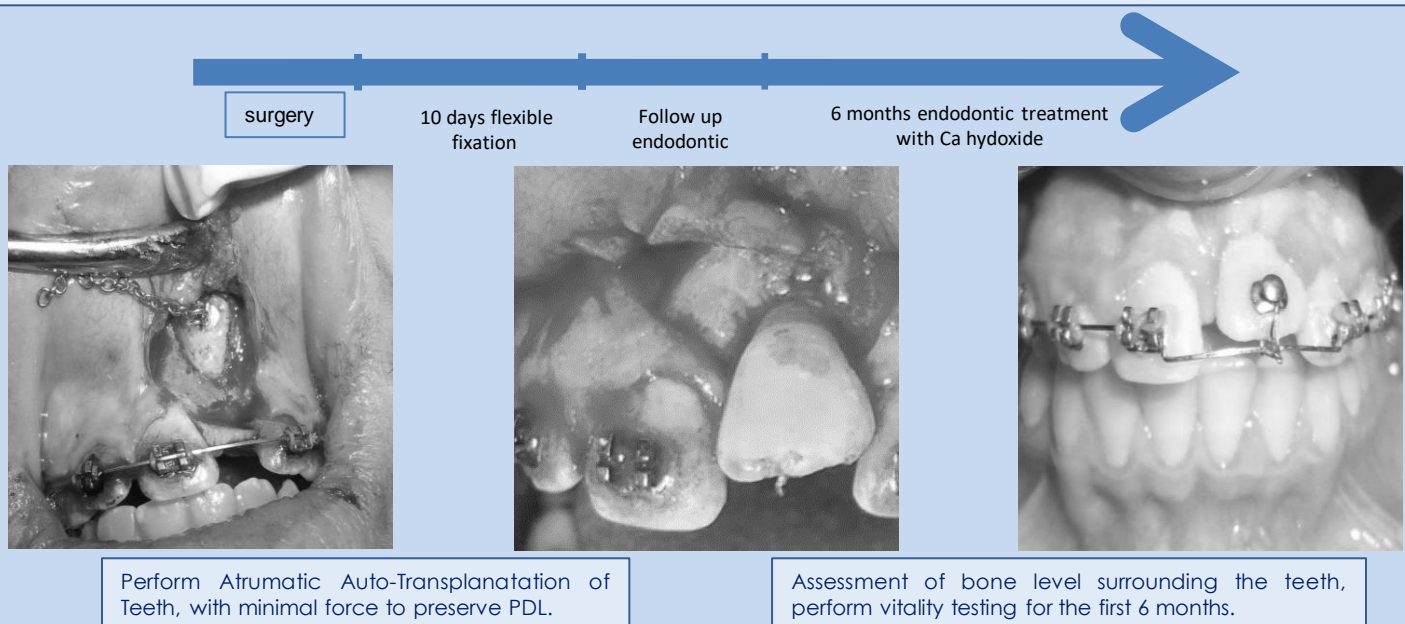
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Introduction: Tooth re-implantation either following traumatic tooth loss or auto-transplant of an impacted tooth in the location of a missing tooth is considered an efficient alternative for conventional prosthetic dentistry. **Methodology:** 14 impacted teeth were included in this retrospective study comparing Auto-transplantation to conventional orthodontic extrusion. The re-implantation of the impacted teeth was done in an extraction socket and splinted by a semi-rigid splint to allow physiological movement of the tooth to prevent ankylosis. In case of development of periapical pathology Calcium Hydroxide, pulpectomy was performed for 6 months before obturation to decrease internal and external root resorption. **Results:** Short term follow up showed a more than 90% success rate. However, after 5 years follow up the incidence of root resorption was evident in 5 cases and only 2 cases had no resorption. **Conclusion and recommendation:** The use of re-implantation offers a temporary successful treatment for missing teeth compared to conventional prosthetic surgery; but long-term follow-up was not promising. On the other hand, conventional Orthodontic extrusion cases showed only a single case of internal resorption. Consequently, the conventional orthodontic extrusion offers a more reliable technique in the extrusion of impacted teeth compared to auto-transplantation.

A practical technique for management of failed orthodontic extrusion ?

Auto-Transplantation Protocol 7 impacted canines and premolars

Study group : All patient had a failed orthodontics extrusion and highly informed about failure of this procedure compared to conventional prosthodontics..



Clinical results



Immediate postop.

Auto-Transplantation.



After 5 years.

After 5 year of auto-transplantation only 2 out of 7 remained in oral cavity



Immediate postop.

Surgical Extrusion.



After 5 years.

After 5 year of auto-transplantation 6 out of 7 remained in oral cavity

Radiographic assessment:



Early Results.

Radiographic evaluation showed successful auto transplantation and no ankylosis in 5 cases.



Early Results.

Radiographic evaluation showed no ankylosis or any signs of resorption in all of the 7 cases having follow-up.



Late Results.

Radiographic evaluation showed failed auto transplantation due to external resorption in 5 cases after 5 years



Late Results.

Radiographic evaluation showed one failed conventional orthodontic extrusion due to external resorption.

Conclusion:

- 1- Auto transplantation is only successful for short period of time through which it can afford as a space maintainer till definitive prosthodontic rehab is done after 18 years old
- 2- The Gold standard treatment is the orthodontic extrusion and if fail the study recommend other prosthodontic rehabilitation options as implant or fixed partial denture; instead of doing auto-transplantation

Reference :

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