

RENAISSANCE OF TOOTH: THE INSIGHTS OF AUTOLOGOUS PULP TRANSPLANTATION

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WHAT IS
AUTOLOGOUS PULP
TRANSPLANTATION
?



METHODOLOGY

Patient selection

Initial treatment
including RCT and
Ca(OH)₂ Placement

Pulp extraction(
usually from 3rd
molar)

Pulp mincing

Transplantation
of minced pulp to
prepared canal

Follow up



#16 Pulp transplantation to #29



1year and 7 months showing apical canal calcification

FUTURE DIRECTIONS...

Long term clinical
studies

Optimization of
harvesting and
transplantation
techniques

growth factor
research which helps
in proliferation of
MSC

Autologous
pulp as REP

No Invitro expansion

Yield MSC

Odontogenic and
osteoblastic
differentiation

Stem cell
REP

Invitro expansion

No MSC
High complexity
procedure

Isolation and
expansion

Training
for chair
side
assistants

Stem cell
banks

Stem cell
challenges

Government
regulatory
issues

High
cost

Specialized
skills

ADVANTAGES:

- Less rejection
- Elimination of symptoms
- Increased root wall thickness/length
- Positive response to vitality testing

LIMITATIONS

- Apical foramen diameter
- Limited viability of transplanted tooth