

Supporting Information

“Gingival Outperform Haploidentical Dental Pulp-Derived Mesenchymal Stem Cells in Proliferation Rate, Migration Ability and Angiogenic Potential”

According to the suggestion and to facilitate the understanding of the study design, we have integrated in the M&M supplementary sections the following sections and most importantly, we clarified the haploidentical conditions as stated below:

Design of the study

Experimental study *in vitro* and *in vivo*.

Sample size

The size of the sample was determined arbitrarily and for convenience. There were three patients who provided two samples each one, one of a dental pulp and another of gingival tissue, which makes a total of 6 samples to be analyzed.

Individual of the study

The population consisted of three healthy individuals' men and woman aged between 18 and 25. The patients were referred to the Universidad de Los Andes Dental Clinic, in Santiago, Chile for extraction of his third molars. In addition, they must meet the following inclusion and exclusion criteria.

Inclusion criteria of the patient:

- Age between 14 and 25 years old.
- Systemically healthy (ASA 1)
- Currently a non-smoker.
- A Patient who has signed an informed consent

Inclusion criteria of the teeth:

- Third molars with no caries and periodontal disease.

Exclusion criteria of the patient:

- A pregnant or lactating patient.
- A patient with a history of systemic disease, which impairs their immune function, such as Diabetes mellitus, immunodeficiency, leukemia, Addison's or Cushing's disease.
- A patient who has taken immunosuppressive drugs or received chemotherapy 3 months before the study.

Exclusion criteria of the teeth:

- Teeth endodontically treated.
- Teeth that showed signs of root resorption during clinical or radiographic examination.
- Teeth with class III mobility.
- Teeth with Dens invaginatus.

Sample Unit

The cells were considered haploidentical as MSCs were isolated from the dental pulp of the third molars, and from gingival tissues of the same patient during the same dental appointment. Therefore, every single patient enrolled contributed in two tissue donations.

Experimental group

Group 1: MSC derived from gingiva of three patients.

Group 2: MSC derived dental pulp from human third molar of the same three patients.

Clinical protocol

The intervention started once the subject was recruited, the diagnosis was established and the informed consent was signed. Expert professionals carried out all procedures.

