

Progress Report: Sri Lanka Clinical Trials Registry

SLCTR registration number: SLCTR/2024/034

Scientific title of trial: Effects of pumice prophylaxis on retention of orthodontic brackets in conventional etch and prime system in patients attending Orthodontic clinic, National Dental Hospital (Teaching), Sri Lanka

Date of commencement (enrolment of first participant): 01/11/2024

Progression: 6 months ☐ 1 year ☐ 2 years ☐ 3 years ☐

At completion ☒

1. Baseline data

Any changes to the trial design/ methodology/ protocol after commencement: A supervisor was added to the trial – Dr K Paranthamalingam, Consultant Orthodontist, National Dental Hospital (Teaching), Colombo.

Any changes to trial outcomes after commencement: No

2. Current status

Recruitment status: pending/ recruiting/ recruitment complete: follow up continuing/
recruitment complete: follow up complete/ recruitment suspended / recruitment terminated

Number assessed for eligibility: 168

Number recruited and allocated/randomized: 74

Number allocated/randomized to each intervention/arm (please edit as relevant):

Arm 1: 639 teeth

Arm 2: 636 teeth

Losses/exclusions after allocation/randomization (please edit as relevant):

Arm 1: 8 teeth

Arm 2: 8 teeth

3. Trial output

Date of trial completion ("last patient, last visit"): 01.12.2025

Final sample size: - 73 patients

Summary of Interim/Final data (if available):

There was no significant difference in bond failure rates in pumiced and non-pumiced groups: $p=0.9909$ ($p=0.05$). The patient perceived discomfort during bracket bonding in pumiced group did not differ significantly from non-pumiced group ($p=0.754$). Gender and age were not significantly associated with the bracket failures in either group and the overall duration of bonded bracket fracture, fracture of bonded brackets on upper teeth and lower teeth among two groups did not reveal significant differences ($p>0.05$).

Abstract presentations of results at scientific meetings

Note: please include a URL link or scanned copy of the abstract

Title of Abstract	Full citation (please include authors, date, title of conference and place of presentation, page number of abstract).

Publications

Note: please include a URL link or scanned copy of the publication

Manuscript has been submitted for reviewing to be published in Sri Lanka Orthodontic Journal

Title of paper	Full citation (please include authors, title of journal, volume, issue and page numbers, and/or DOI)

Dr M.N.J.A Ramanayaka

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Name and signature of Responsible Registrant/
Principal Investigator
Date: 14/03/2026