Objective: to observe the difference of mixed bacteria in children’s salivary after rinsing with tea tree oil mouthwash 0.2% and cetylpyridinium chloride mouthwash 0.05%. Method: the study was carried out for 4 days. Thirty children were selected and randomly divided in three groups: group I (subjected to tea tree oil mouthwash), group II (subjected to cetylpyridinium mouthwash) and group III (subjected to placebo mouthwash). Baseline sample were collected on the 1st day morning. After 30 minutes, all groups were subjected to 15 ml of mouthwash rinse for 30 seconds. Daily twice rinsing of mouthwashes was carry out for 3 days, the regimen was discontinued and saliva sample was collected on 4th day to observe the substantivity. Reaction tubes containing mixed bacteria were counted by spectrophotometer. Result: tea tree oil and cetylpyridinium chloride mouthwash showed significant antimicrobial activity against mixed bacteria in children’s salivary. Conclusion: there was difference amount of mixed bacteria on children’s salivary before and after rinsing with tea tree oil mouthwash and cetylpyridinium chloride mouthwash. Both decreased the mixed bacteria on children’s salivary, but tea tree oil mouthwashes reduce more than Cetylpyridinium chloride mouthwash.

Keywords: mixed bacteria, children’s salivary, tea tree oil, mouthwashes, cetylpyridinium chloride.