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Efficacy of barberry aqueous extracts dental gel on control of plaque and gingivitis

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Abstract

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Herbal extracts have been successfully used in dentistry as tooth cleaning and antimicrobial plaque agents. The aim of this study was to evaluate the clinical effects of a dental gel containing barberry extracts (from Berberis vulgaris) on gingivitis and microbial plaque control. A double blind clinical trial study was conducted in a dormitory on 45 boys aged 11-12 years having the same socioeconomic conditions. These students were divided into 3 groups; the first group (25 students) using barberry gel, and the second group (10 students) using placebo gel without active ingredient. To compare the activity of our gel with an active antiplaque, a third group of 10 students using Colgate® antiplaque toothpaste was also considered. At the beginning all subjects were examined for plaque index (PI) and gingival index (GI). These tests were re-evaluated after 21 days of using the above mentioned dentifrices. The results showed that barberry gel has reduced the PI for about 56%. This reduction was 18.5% for placebo and 44% for Colgate® antiplaque groups. Considering means of PI (?PI) and GI (?GI) of different groups, there was significant difference between barberry and placebo gel's groups and between placebo and Colgate® groups, but the difference between barberry and Colgate® groups was not significant. This study indicates that the barberry dental gel effectively controls microbial plaque and gingivitis in the school aged children; therefore, the use of barberry dental gel is strongly recommended.

Author keywords

Barberry dentifrice; Barberry gel; Gingival index; Plaque index

Indexed Keywords

EMTREE drug terms: berberis vulgaris extract; colgate; placebo; plant extract; toothpaste; unclassified drug

EMTREE medical terms: aqueous solution; article; Berberis; berberis vulgaris; clinical article; clinical trial; controlled clinical trial; controlled study; disease control; double blind procedure; drug effect; drug efficacy; gel; gingivitis; human; male; school child; social status; student; tooth plaque

Drug tradename: colgate.

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