

RESTORATION OF PROXIMAL SURFACES OF POSTERIOR TEETH USING THE INJECTION-MOLDING TECHNIQUE: CLINICAL STUDY

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Background. Restoration of the proximal surfaces of posterior teeth represents a challenge in adhesive dentistry, as the correct reconstruction of proximal morphology and interdental contact is essential for maintaining the functionality of the stomatognathic system and for preventing complications such as dental caries, periodontal diseases, and occlusal disorders. In this context, the development of modern composite materials and restorative techniques, such as the injection-molding technique with bulk-fill composites, provides an efficient approach for simplifying the clinical protocol and optimizing proximal restorations.

Objective of the study: To clinically evaluate proximal restorations of posterior teeth performed using the injection-molding technique according to functional, aesthetic, and biological criteria.

Material and methods. The study included 15 patients with carious cavities located on the proximal surfaces of posterior teeth, selected based on well-defined clinical and paraclinical criteria. Diagnosis and treatment planning were established through medical history, clinical examination, and bite-wing radiovisioagraphy. The gingival index, the Green-Vermillion oral hygiene index, the and DMFT (Decayed, Missing, Filled Teeth) index were also assessed. Proximal cavities were restored using the injection-molding technique with bulk-fill composite materials, and the outcomes were clinically and radiologically evaluated after 3 months according to the functional, aesthetic, and biological criteria established by the International Dental Federation (FDI).

Results and discussions. The oral hygiene index showed a decrease in the mean value from 1.54 ± 0.98 initially to 0.78 ± 0.43 at 3 months post-treatment, while gingival status improved significantly, with the majority of patients presenting healthy gingiva at reevaluation. The analysis of restorations according to FDI functional, aesthetic, and biological criteria revealed very good clinical outcomes, with adequate restoration integrity and marginal adaptation, absence of recurrent caries, and appropriate interdental contact. Postoperative sensitivity was absent in 93,3% of cases, and the aesthetic stability of the restorations was maintained.

Conclusions. Short-term evaluation of proximal restorations in posterior teeth performed using the injection-molding technique supports the effectiveness of this approach, demonstrating improvement of gingival parameters, maintenance of interdental contact tightness, and a high rate of clinical success.

Keywords. Injection-molding, proximal restorations, posterior teeth.

PARTICULARITĂȚILE DE EPIDEMIOLOGIE A PERIOSTITELOR ODONTOGENE LA COPII ÎN PERIOADA PREȘCOLARĂ

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Introducere: Abcesul subperiostal de origine odontogenă reprezintă una dintre cele mai frecvente infecții ale regiunii oro-maxilo-faciale la copii, întâlnit cu precădere la vârsta preșcolară și asociat cu prevalența ridicată a cariei dentare. Particularitățile anatomice și funcționale ale copilului favorizează evoluția rapidă și extinderea proceselor inflamatorii.

Scopul lucrării: Analiza aspectelor epidemiologice ale abcesului subperiostal la copiii preșcolari.

Material și metode: Studiul a fost realizat în cadrul Spitalului Clinic Municipal de Copii „Emilian Coțaga”, pe un lot de 236 de pacienți pediatrici. Cercetarea a avut caracter retrospectiv și descriptiv, fiind bazată pe analiza fișelor medicale ale copiilor de vârstă preșcolară internați pentru tratament. Datele colectate au fost sistematizate și prelucrate statistic utilizând programul Microsoft Excel, iar semnificația diferențelor dintre variabile a fost evaluată prin testul t-Student.

Rezultate: Examinarea lotului de 236 de copii a evidențiat o distribuție relativ echilibrată în funcție de sex, cu o ușoară predominanță a sexului feminin (52,54%) față de cel masculin (47,46%), fără diferențe semnificative statistic ($p > 0,05$). Distribuția cazurilor în funcție de vârstă a fost relativ uniformă în intervalul analizat (4–7 ani). Majoritatea pacienților au provenit din mediul urban (59,75%), comparativ cu mediul rural (40,25%). Forma acută purulentă a fost net predominantă, fiind diagnosticată în 91,53% dintre cazuri, în timp ce forma acută seroasă a reprezentat 8,47%, diferența fiind semnificativă statistic ($p < 0,05$).

Concluzii: Datele obținute evidențiază rolul major al infecțiilor dentare în apariția abceselor subperiostale la vârsta preșcolară. Predominanța formei acute purulente subliniază necesitatea diagnosticului precoce și a tratamentului stomatologic oportun pentru prevenirea complicațiilor.

Cuvinte-cheie: abces subperiostal, infecții odontogene, copii preșcolari, dinți temporari.

EPIDEMIOLOGICAL CHARACTERISTICS OF ODONTOGENIC PERIOSTITIS IN PRESCHOOL CHILDREN

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Background. Subperiosteal abscess represents one of the most frequent infections of the oro-maxillofacial region in children, occurring predominantly in the preschool age group and being closely associated with the high prevalence of dental caries. The anatomical and functional particularities of the child favor the rapid progression and spread of inflammatory processes.

Objective of the study: To analyze the epidemiological aspects of subperiosteal abscess in preschool children.

Material and methods: The study was conducted at the „Emilian Coțaga” Municipal Clinical Children’s Hospital on a group of 236 pediatric patients. The research had a retrospective and descriptive design and was based on the analysis of medical records of preschool children. The collected data were systematized and statistically processed using Microsoft Excel, and the significance of differences between variables was assessed using the Student’s t-test.

Results: The examination of the group revealed a relatively balanced distribution by sex, with a slight predominance of females (52.54%) compared to males (47.46%). The distribution of cases by age was relatively uniform within the analyzed interval (4–7 years). Most patients originated from urban areas (59.75%), compared to rural areas (40.25%). The acute purulent form was clearly predominant, being diagnosed in 91.53% of cases, while the acute serous form accounted for 8.47%, the difference being statistically significant ($p < 0.05$).

Conclusions: The obtained data highlight the major role of dental infections in the development of subperiosteal abscesses in preschool children. The predominance of the acute purulent form emphasizes the importance of early diagnosis and timely dental treatment to prevent complications.

Keywords: subperiosteal abscess, odontogenic infections, preschool children, primary teeth.