

da je u evolutivnom smislu taj zub postignuo znatan napredak u odnosu prema KH. Dominantan crtež brazdi na M3 u objema skupinama je oblika +. Crtež brazdi X nije nađen ni na jednome M3 u KH, za razliku od KS gdje crtež brazdi X postoji u preko četvrtine zuba. Takav nalaz upućuje na zaključak da je od svih donjih molara KS u evolutivnom smislu M3 dosegno najvišu razvojnu razinu.

The Comparison of Molar Traits in Krapina Hominids and Contemporary Humans

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The aim of this study was to investigate morphological characteristics of occlusal surfaces of permanent molars in Krapina hominid (KH) and to compare them with the findings in the modern population (control group, CG). ASU (Arizona State University Dentoanthropological System) standards for the characterization of morphological variants of permanent molars were used for classification of occlusal molar surface characteristics. A total number of 77 KH molars, among them 34 upper and 43 lower, as well as 4836 CG molars, among them 2548 upper and 2288 lower ones was analysed. The analysis of occlusal molar surfaces revealed a lower incidence of distolingual cusps in CG third and second upper molars. The disappearance of reduction in size of distolingual cusp resulted in a change in occlusal surface contour from rhomboid to triangular and H-shaped grooves were lost; these characteristics were more frequently present in KH ($p < 0.05$). The least difference was found in the first upper molar; the only significant difference was the Carabelli trait, present significantly more frequently in KH ($p < 0.01$). In lower KH molars (M1, M2, M3) the incidence of distal cusp was reduced ($p < 0.01$). In both study groups the most frequent groove shape in M3 and M2 was + shape. X-shape was seen only in CG. The predominant groove shape in M1 was Y-shape in both study groups. Based on these results, it may be concluded that the number of cusps was reduced and the shape of occlusal surface was changed in modern humans, leading to a reduction in the total masticatory surface. Since Y-shape is con-

sidered most conservative and X-shape considered the most advanced by anthropologist, we conclude that M1 remained the most conservative and did not undergo any progression in tooth evolution. The dominant groove shape in M2 was +shape. Since the +shaped groove is considered intermediate stage the highest evolutionary stage of Y-shape, i.e. the initial stage in X-shape formation, this tooth can be considered the transitional stage in tooth evolutionary development. X-shape was found only in CG, indicating the significant advancement in tooth evolutionary development in comparison with KH. The dominant groove shape in M3 was +shape in both study groups. X-shape was not found in any of KH M3 in contrast to CG, where it was found in more than one fourth of teeth. This finding indicates that M3 reached the highest developmental stage among all lower molars in CG.

Interdisciplinarna suradnja ortodontije i estetske stomatologije - prikaz triju slučajeva

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Ortodontska terapija ne može uvijek potpuno zadovoljiti sve estetske i funkcionalne zahtjeve. U takvim slučajevima interdisciplinarnom suradnjom postižu se bolji rezultati, na zadovoljstvo pacijenta i terapeuta. U radu su prikazana tri pacijenta, različitih dentofacijalnih anomalija, dobi i spola, nakon završene ortodontske terapije, u kojih nije bilo moguće potpuno estetski i funkcionalno zadovoljiti sve zahtjeve struke bez pomoći estetske stomatologije. Iako smo u sva tri slučaja mogli odabrati protetsku sanaciju (npr. estetska keramička krunica), odlučili smo se za rekonstrukciju zubne krune kompozitnim materijalom (koronoplastiku), kojom smo postignuli zadovoljavajuće rezultate.

1. slučaj: u 19- godišnje djevojke, nakon završene ortodontske terapije proženije, promjena boje i veličine gornjega središnjeg inciziva, uzrokovana endodontskim liječenjem i neadekvatnim kompozitnim ispunom, predstavljala je estetsko na-

ruženje. Rekonstrukcijom krune zuba kompozitnim materijalom dobiveni su zadovoljavajući rezultati.

2. slučaj: 18. godišnja djevojka s dijagnozom hipodontije gornjega lateralnog inciziva desno i s rudimentarnom formom istoga zuba s lijeve strane ortodontski je sanirana ekstrakcijom rudimentarnog zuba s lijeve strane, te zatvaranjem prostora mezijalizacijom kanina na mjesto gornjega lateralnog inciziva, obostrano. Korekturnim prebrušavanjem kanina u inciziv nisu dobiveni zadovoljavajući rezultati, zbog čega je provedena koronoplastika.
3. slučaj: ortodonska terapija 20 - godišnjeg mladića s dijagnozom pokrovnog zagriža i nesrazmjerom u širinama kruna frontalnih zuba gornje i donje čeljusti. Nakon završene ortodonske terapije, zaostale dijasteme između prednjih gornjih zuba, kojima je uzrok manja veličina gornjih u odnosu prema donjim incizivima, riješena je rekonstrukcija zubne krune svih četiriju gornjih inciziva kompozitnim materijalom.

Estetska sastavnica postala je primarnim čimbenikom u psihologiji dobrog izgleda, pogotovo u mladih pacijenata, kao i jedna od glavnih zadaća ortodontije i estetske, rekonstruktivne stomatologije. Suvremeni materijali za ispune, koji se rabe pri rekonstrukciji zubne krune u slučajevima sličnim navedenima, danas omogućuju da se postignu vrhunski rezultati i u estetskom i u funkcionalnom smislu.

Interdisciplinary Orthodontic and Cosmetic Dentistry Approach Three Case Report

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Orthodontic therapy is not always able to completely meet all cosmetic and functional requirements. In such cases, better results are achieved by an interdisciplinary

approach, to the satisfaction of both the patient and the therapist.

Presentation is made of three patients differing according to their dentofacial anomalies, age and sex, in whom professionally stated cosmetic and functional requirements could not have been fully met by orthodontic therapy alone, without the aid of cosmetic dentistry. Although prosthetic treatment (e.g., cosmetic ceramic crown) could have been chosen in all three cases, it was decided to perform dental crown reconstruction with composite material (coronoplasty), which produced satisfactory results.

Case 1: In a 19-year-old girl, discoloration and size variation of the upper central incisor, caused by endodontic therapy and inappropriate composite filling, remained upon completion of the orthodontic treatment for prognathism, presenting as a cosmetic defect. Satisfactory results were obtained by dental crown reconstruction with composite material.

Case 2: An 18-year-old girl with a diagnosis of upper lateral incisor hypodontia on the right and rudimentary form of its counterpart underwent orthodontic treatment with rudimentary tooth extraction on the left and space closure by canine mesialization to the site of the upper lateral incisor bilaterally. As corrective canine regrinding to an incisor failed to produce satisfactory results, coronoplasty was performed.

Case 3: A 20-year-old man with a diagnosis of overbite and disproportional crown width of mandibular and maxillary front teeth underwent orthodontic treatment, which resulted in residual diastema between the upper front teeth due to the smaller size of the upper relative to lower incisors. Dental crown reconstruction with composite material was performed in all four upper incisors.

The cosmetic component has become a major factor in the psychology of good appearance, especially in the young, and one of the main tasks of orthodontics and cosmetic reconstructive dentistry. The filling materials currently used on dental crown reconstruction, in cases such as those described, have allowed for excellent results to be achieved in both cosmetic and functional terms.