

Korelacija histopatološkog nalaza pulpnog i periapexnoga tkiva

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Svrha je istraživanja bila analizirati korelaciju između histopatološkog nalaza pulpe i periapexnoga tkiva za vrijeme otvorenog tipa infekcije pulpe na eksperimentalnome modelu psećih zuba.

Devet pasa mješanaca podijeljeno je u četiri eksperimentalne skupine. Pulpa mandibularnih premolara (37 korjenova) je trepanirana s pomoću spororotirajućega zubnog koljičnika. Zubi su ostavljeni otvoreni djelovanju oralnoga mikro okruženja 20 dana (skupina I- dvije životinje, 8 korjenova), 35 dana (skupina II- tri životinje, 15 korjenova), 50 dana (skupina III- 2 životinje, 6 korijena) i 65 dana (skupina IV- dvije životinje, 8 korijenova) kako bi se inducirao pulpitis i apeksni parodontitis. Pulpe mezijalnoga korijena (9 korjenova) mandibularnih molara (kontrolni zubi) nisu bili izloženi oralnom mikrookruženju. Nakon završetka eksperimentalnog perioda životinje su žrtvovane. Nedemineralizirani zubi s okolnom alveolarnom kosti uklopljeni su u metil-metakrilat i pripremljeni za histološko bojenje Toluidinskim modrilom.

Nakon 20 dana izloženosti (skupina I) na 6 korjenova histopatološka dijagnoza bila je parcijalna nekroza pulpe, a na dva korijena nekroza je zahvatila cijelu pulpu. U skupini II (35 dana izloženosti) na tri korijena je dijagnoza pulpitis, na 6 potpuna nekroza pulpe, te na ostalih 6 djelomična nekroza pulpe. U skupini III (50 dana izloženosti) dva korijena imala su pulpitis, tri djelomičnu nekrozu pulpe, a jedan potpunu nekrozu pulpe. U skupinu IV (65 dana) sve su pulpe (8) bile potpuno zahvaćene nekrozom. Svi zubi s pulpitisom (5 korjenova), bez obzira na eksperimentalno razdoblje, imali su akutni serozni apeksni parodontitis, svi zubi s djelomičnom nekrozom pulpe (15 korjenova) imali su sliku subakutnog apeksnog parodontitisa. Zubi s potpunom nekrozom pulpe (19 korjenova) imali su sliku kroničnog apeksnog parodontitisa, a u jednom slučaju, u skupini III, periapexni absces. Korelacija između histopatoloških nalaza pulpe i periapexnog tkiva je statistički znatna (Pearsonova korelacija; $r = 0,92$, $p < 0,01$).

Stanje pulpe u korelaciji je s histopatološkim nalazom periapexnoga tkiva u otvorenom tipu infekcije pulpe. Akutni apeksni parodontitis s resorpcijom kosti počinje za vrijeme pulpitisa i može se razviti prije dvadesetoga dana izloženosti pulpe na modelu psećih zuba.

Histological Correlation Between Pulp and Periapical Tissue Findings

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The aim of the study was to analyse the correlation between histopathological findings of pulp and periapical tissue during open infection of the pulp on the experimental dog model.

Nine mongrel dogs were divided into 4 experimental groups. Pulps of mandibular premolars (37 roots) were exposed using low-speed dental engine. Teeth were left open to the oral environment for 20 days (group I - two animals with eight roots), 35 days (group II - three animals with 15 roots), 50 days (group III - two animals with 6 roots) and 65 days (group IV - two animals with eight roots) to induce pulpitis and apical parodontitis. Pulp of the mesial root (nine roots) of a mandibular molar (control tooth) were not exposed to the oral environment. After the experimental period animals were sacrificed. Undemineralized teeth with bone, embedded in methylmetacrylate, were prepared for histological analysis (toluidine blue).

After 20 days exposure (group I) six roots had partial pulp necrosis and two roots complete pulp necrosis. In group II (35 days exposure) three pulps had pulpitis, six roots had complete pulp necrosis and six partial pulp necrosis. In group III (50 days exposure) two roots had pulpitis, three partial pulp necrosis and one complete pulp necrosis. In group IV (65 days) all pulps (eight) had complete pulp necrosis. All teeth had pulpitis (five roots), regardless of the experimental period, had acute serose apical periodontitis in periapical tissue, all teeth (15 roots) with partial necrosis had subacute apical periodontitis in the periapical tissue. Teeth with complete pulp necrosis (19 roots) had chronic apical periodontitis and in one case in group III abscessus periapicalis. Correlation between histo-

pathological findings of the pulp and periapical tissue is statistically significant (Pearson correlation; $r = 0.92$, $p < 0.01$).

The condition of the pulp correlated with the histopathological findings of periapical tissue in the open types of the pulp infection. Acute apical periodontitis with bone resorption began during pulpitis and can occur before 20 days of the pulp exposure in the dog.

Utjecaj različitih čimbenika na iznos resorpcije bezubih alveolarnih grebena u nositelja potpunih proteza

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Gubitak bezubog alveolarnoga grebena (RRR) stalan je proces koji dovodi do smanjenja visine lica i rotacije čeljusti u smjeru obrnutom od kretanja kazaljke na satu. Smatra se da lokalni i sustavski čimbenici utječu na RRR.

Svrha rada bila je analizirati iznos RRR na 5 različitih mjesta gornje i donje čeljusti na lateralnim telerecenoogramima u razdoblju od godine dana.

Mjeren je iznos resorpcije rezidualnih alveolarnih grebena na 5 različitih mjesta obiju čeljusti na postraničnim telerecenoogramima kod 50 nositelja potpunih proteza u razdoblju od jedne godine, a također je analiziran i doprinos nekih čimbenika na iznos resorpcije. Visina bezubih grebena mjerena je na 5 mjesta bezubih grebena gornje i donje čeljusti prigodom predaje proteza i nakon razdoblja od jedne godine uz uporabu kalibrirane mrežice. Hijerarhijska regresijska raščlamba napravljena je kako bi se ustanovio udio pojedinih čimbenika na iznos resorpcije.

Hijerarhijska regresijska raščlamba čimbenika kao što su indeks mase tijela, spol, dob, vrijeme bezubosti, broj prijašnjih proteza, nošenje proteza danju i / ili danju i noću, vrijeme proteklo od menopauze u žena, površina ležišta proteza i mjesto posljednje ekstrakcije pokazala je da jedini važni čimbenici koji pridonose RRR-u jesu razdoblje bezubosti i broj prijašnjih proteza ($p < 0,05$).

Vrijeme bezubosti i broj prijašnjih proteza ($p < 0,05$) znatno su pridonijeli iznosu resorpcije rezidualnih alveolarnih grebena u razdoblju od godine dana.

Influence of Different Factors on the Rate of Residual Ridge Resorption in Complete Denture Wearers

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Alveolar bone loss (RRR) is a continuous process leading to a reduction of the morphological face height and counterclockwise rotation of the mandible. It has been speculated that both systemic and local factors contribute to RRR.

The aim of this study was to analyse the rate of RRR in five different regions of both jaws on lateral cephalograms.

The rate of RRR was analysed in five different regions of both jaws in lateral cephalograms of 50 complete denture wearers during a one-year period and the contribution of some factors to the rate of RRR was also analysed. The height of residual ridges was measured on 5 different sites at the delivery of the dentures and a year later using a calibrated grid. Hierarchic regression analysis was made to reveal the contribution of different factors to RRR.

Hierarchic regression analysis was made (the factors included were: body, mass index, gender, age, time of edentulousness, number of previous dentures, night-time denture wearing, period od postmenopause in women, surface of denture bearing area and place of last extraction) and revealed that the only statistically significant factors contributing to RRR was the period od edentulousness and number of previous dentures ($p < 0.05$).

The period of edentulousness and number of previous dentures ($p < 0.05$) contributed significantly to the rate of RRR.