·基础与临床研究·

iRoot SP单尖法根管充填后桩道预备时机对根尖封闭效果的影响

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【摘要】 目的　研究iRootSP单尖法根管充填后不同桩道预备时机对根尖封闭效果的影响。**方法**　收集单根管离体牙75枚，截冠，随机分9组，其中A1、A2、A3组采用AH-Plus＋热牙胶充填，；B1、B2、B3组采用iRoot SP+单尖根充；A4组热牙胶根充；B4组单尖根充；C组只预备不充填。A1和B1组立即预备桩道，而A2和B2组则1周后延迟进行，A3、B3、A4、B4组不进行桩道预备。A4组和B4组为阳性对照组，C组为阴性对照组，运用染料微渗漏实验及扫描电镜观察评价根尖区微渗漏情况。**结果**　各实验组及阳性对照组的染料均渗透入根尖，渗透深度分别为A1：（1.14±0.40）mm；A2：（1.32±0.14）mm；A3：（0.61±0.15）mm；A4：（4.75±0.16）mm；B1：（1.07±0.17）mm；B2：（1.22±0.19）mm；B3：（0.52±0.15）mm；B4:15 mm；C：0 mm。比较染料渗透深度，其中A1组与A3组、B1组与B3组、A2组与A3组、B2组与B3组间差异具有统计学意义（$P<0.05$）。其余各组之间的差异均无统计学意义（$P>0.05$）。iRootSP封闭性与AH-Plus相似，iRootSP单尖法充填后即刻、延迟桩道预备后根尖封闭性相似。**结论**　iRoot SP单尖法根管充填与AH-Plus热牙胶连续波垂直加压根充比较，其根尖封闭效果相似，即刻、延迟桩道预备对iRoot SP单尖法根管充填根尖封闭效果无影响。

【关键词】 iRoot SP　桩道预备　封闭　单尖充填技术
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Effect of the timing of post space preparation after root canal filling on apical sealing ability of iRoot SP single-tip obturation

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【Abstract】 Objective　To investigate the effect of different post channel preparation timing on the apical closure of iRootSP single-tip root canal obturation. **Methods**　Seventy-five single-rooted teeth were collected and divided randomly into 9 groups: group A1, A2, and A3 were filled with AH-Plus+ hot gutta-percha; B1, B2, and B3 were filled with iRoot SP+ single tip root filling; group A4 was filled with hot gutta-percha root filling; group B4 was filled with single apical root filling; Group C was only prepared without filling. In group A1 and B1, post space preparation was performed immediately, while in group A2 and B2, post space preparation was delayed after 1 week, and in group A3, B3, A4, and B4, no post space preparation was performed. Group A4 and B4 were used as positive control group, and group C was used as negative control group. Dye microleakage test and scanning electron microscope observation were used to evaluate the microleakage in the apical region. **Results**　The dye of the experimental group and the positive control group penetrated into the apical root, and the penetration depths were A1: (1.14±0.40) mm, A2: (1.32±0.14) mm; A3: (0.61±0.15) mm; A4: (4.75±0.16) mm; B1: (1.07±0.17) mm; B2: (1.22±0.19) mm; B3: (0.52±0.15) mm; B4: 15 mm; C: 0 mm. There were significant differences between

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