二氧化锆全瓷冠与钴铬合金烤瓷冠在牙体缺损修复中的美学效果分析

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[摘要]目的：分析二氧化锆全瓷冠与钴铬合金烤瓷冠在牙体缺损修复中的美学效果。方法：以2020年1月-2021年1月笔者医 院收治的120例牙体缺损患者为研究对象，采用随机数字表法分为钴铬合金组和二氧化锆组，每组60例。钴铬合金组采用钴 铬合金烤瓷冠进行修复，二氧化锆组采用二氧化锆全瓷冠进行修复，两组修复完成后均随访6个月。统计两组修复后美学效 果及随访期间并发症发生情况，比较两组修复前和随访6个月后龈沟液（Gingival crevicular fluid,GCF）指标及牙周情 况。结果：修复后，二氧化锆组适合性、颈缘凸度及颜色协调度优良率（93.33%、95.00%、86.67%）显著高于钴铬合金组 （80.00%、81.67%、71.67%），差异有统计学意义（P＜0.05）。随访6个月后，两组GCF量及GCF软骨糖蛋白-39（YKL40）水平高于治疗前，但二氧化锆组低于钴铬合金组（P＜0.05）；钴铬合金组抵抗素水平高于治疗前，且高于二氧化锆 组（P＜0.05）。随访6个月后，两组菌斑指数、牙周探诊深度、牙龈指数高于治疗前，但二氧化锆组牙周探诊深度、牙龈 指数低于钴铬合金组（P＜0.05）。随访期间，二氧化锆组总并发症发生率为6.67%，显著低于钴铬合金组的18.33%，差异有 统计学意义（P＜0.05）。结论：与钴铬合金烤瓷冠相比，采用二氧化锆全瓷冠对牙体缺损患者进行修复，可有效提高美学 效果，改善患者GCF分泌情况及牙周情况，降低并发症的发生，具有较好的修复效果。

[关键词]牙体缺损；修复；二氧化锆；全瓷冠；钴铬合金；烤瓷冠；美学效果

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Analysis of Aesthetic Effect of Zirconia All-porcelain Crown and Cobalt-chromium Alloy Porcelain Crown in Tooth Defect Repair

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Abstract: Objective To analyze of aesthetic eff ect of zirconia all-porcelain crown and cobalt-chromium alloy porcelain crown in tooth defect repair. Methods A total of 120 patients with tooth defect admitted to our hospital from January 2020 to January 2021 were selected as the research subjects. They were divided into the cobalt-chromium alloy group (60 cases) and the zirconia group (60 cases) by random number table method. The cobalt-chromium alloy group was repaired with cobalt-chromium alloy porcelain crown, and the Zirconia group was repaired with zirconia all-porcelain crown. Both groups were followed up for 6 months after the repair. The aesthetic eff ect after repair and the incidence of complications during follow-up were analyzed, and gingival crevicular fl uid (GCF) indexes and periodontal conditions were compared between the two groups before repair and 6 months after follow-up. Results After repair, the excellent and good rates of fi tness, neck edge crown and color coordination in the zirconia group (93.33%,95.00%,86.67%) were signifi cantly higher than those in cobalt-chromium alloy group (80.00%, 81.67%, 71.67%）,the diff erences were statistically signifi cant(P＜0.05). After 6 months of follow-up, the level of GCF and the level of GCF cartilage glycoprotein-39 (YKL-40) in both groups were higher than before treatment, but the zirconia group was lower than the cobalt-chromium alloy group (P＜0.05). The level of GCF resistinin cobalt-chromium alloy group was higher than that before treatment and higher than that in the zirconia group (P＜0.05). After 6 months of follow-up, the plaque index, periodontal probing depth and gingival index of the two groups were higher than those before treatment, while the periodontal probing depth and gingival index of the zirconia group were lower than those of the cobalt-chromium alloy group (P＜0.05). During follow-up, the incidence of total complications in the zirconia group was 6.67%, signifi cantly lower than that in the cobalt-chromium alloy group 18.33%,the diff erences was statistically signifi cant（P＜0.05). Conclusion Compared with the cobalt-chromium alloy porcelain crown, the use of zirconia all-porcelain crown for the restoration of patients with tooth defect could eff ectively improve the aesthetic eff ect, improve the secretion of GCF and periodontal conditions, reduce the incidence of complications, and had a better restoration eff ect.

 Key words: tooth defect; repair; zirconia; all-porcelain crown; cobalt-chromium alloy; porcelain crown; aesthetic eff ect