

30<sup>th</sup> International Conference & Exhibition on

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5<sup>th</sup> Annual Summit on

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### Bio-ceramics as an innovative savior for perforation repair

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**Purpose:** To compare the effect of two bioactive bio-ceramic materials on the repair of furcation perforation.

**Materials & Methods:** Ninety-six teeth in six dogs were divided into two main groups according to the time of repair; immediate and delayed (one month). Each group was divided into three sub-groups according to the evaluation period; one, two and three months. Each sub-group was further divided into two sub-groups according to the material used; Bio-dentine and MTA. Each sub-group was evaluated radiographically to assess bone change percentage, histologically to assess the inflammatory cell count and immunohistochemically to assess the hard tissue formation. Data were analyzed using ANOVA and Tukey's test.

**Results:** The evidence of new hard tissue was noticed with no significant difference between Bio-dentine and MTA ( $P=0.523$ ), both found with the highest deposition of hard tissue. Time of repair and the evaluation period showed the statistically significant effect on the bone change percentage, the inflammatory cell count, and the hard tissue formation.

**Conclusion:** Furcation perforation has a poorer prognosis if the perforation site is not immediately repaired. New hard tissue prevalence increased throughout the evaluation periods. Both tested materials; Bio-dentine and MTA promote hard tissue formation.

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**Notes:**