**Objectives**
To compare the 6-month clinical performance of a “universal” adhesive in non-carious Class V lesions using four different adhesive strategies.

**Materials and Methods**
21 patients participated in this study, in which 70 Class V restorations were placed. The restorations were randomly assigned into four experimental groups according to different adhesive strategies of Scotchbond Universal Adhesive (SBU, 3M ESPE): A. 3-step etch-and-rinse: 34% phosphoric acid (PA, Scotchbond Universal Etchant, 3M ESPE) and application of SBU followed by one coat of the non-solvated bonding resin Scotchbond Multi-Purpose Adhesive (SBMPA, 3M ESPE); B. 2-step etch-and-rinse: 34% PA followed by SBU; C. 2-step self-etch: SBU followed by one coat of SBMPA; D. 1-step self-etch: SBU alone. All restorations were evaluated at baseline and after 6 months by two blind observers using the USPHS criteria. Statistical analysis was performed with the non-parametrical tests Kruskal-Wallis, Mann Whitney U and Wilcoxon (p<0.05).

**Results**
Only one restoration from the group 1-step/SBU was lost at six months. Marginal adaptation was the only criterion for which statistically worse scores were measured after 6 months (p<0.01). Significantly more bravo scores were detected when SBU was used following a self-etch strategy. The restorations performed with SBU as 1-step self-etch adhesive exhibited a significantly deterioration of the marginal adaptation after 6 months.

**Conclusions**
Restorations performed with SBU under a self-etch strategy showed worse marginal adaptation after 6 months of clinical use compared to those with SBU under an etch-and-rinse strategy. The addition of a non-solvated hydrophobic coating (SBMPA) did not influence the clinical performance.

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**Oral Presentation 31**
**TITLE:** Endodontic treatment for avoiding an inferior alveolar nerve paresthesia

**AUTHORS:** Gómez Álvarez G, Gómez Martín C, Del Valle Aleixandre B, Zorita García M, Mena Álvarez J.

**SOURCE:** J Clin Exp Dent. 2014 1;6 (Supplement1):S15.

* doi:10.4317/jced.17643815  
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**Oral Presentation 32**
**TITLE:** Application of Bioinformatics in the Mount/Hume classification of caries and his relationship with Orthopantomography

**AUTHORS:** Hernando Dumaraog B, De Paz JF, Corchado JM, García E, Aliaga I, Campo L, Vera V.

**SOURCE:** J Clin Exp Dent. 2014 1;6 (Supplement1):S15.

* doi:10.4317/jced.17643816  
http://dx.doi.org/10.4317/jced.17643816
**Objectives**
The incorporation of computational techniques and artificial intelligence in the area of biomedicine has made remarkable progress in the prevention and detection of diseases. Decision trees are a prediction model used in the field of artificial intelligence that provides a human expert information, a caries classification in this study, made by the system, generating rules that will support decision making.

Dental caries is one of the most prevalent infectious diseases in patients and the diagnosis is made by dentists using clinical and radiological examination. The aim of this study is to analyze the relationship between the Mount/Hume classification of caries and Orthopantomography x-ray.

**Materials and Methods**
The study was realized on fifty patients who attended to the triage of the School of Dentistry in the Complutense University of Madrid and performed by a faculty of the department of Conservative Dentistry. After clinical examination and radiological study, all the findings were uploaded in patient’s chart, the data collected is sent to the University of Salamanca to be analyzed by Bioinformatics.

**Results**
Three decision trees were generated by the algorithm J48. Decision tree number two, associated the variables size and location of the lesion using the Mount/Hume classification and radiographic variable.

**Conclusions**
Decision trees are a simple tool that allows us to visualize and analyze the relationship between the Mount/Hume classification of caries and extraoral radiographic study.

Decision trees used in this study highlight the need for the use of the panoramic radiograph for classifying caries sizes 2, 3 and 4 and location 2 of Mount/Hume and not in sizes 0 and 1 that require more specific diagnostic tests.

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**- Oral Presentation 33**

**TITLE:** Evaluation of the shades in the space CieL-ch of Amaris composites

**AUTHORS:** Guzmán Pina S, Funes Gil I, Fernández Sánchez G, Chiva García F.

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**Objectives**
To evaluate color change parameters in space CieL-ch of Amaris (VOCO®) dentin composit resin when adding its enamel colors

**Materials and Methods**
45 discs, 2mm thick and 6mm in diameter were created of Amaris dentin shade, and divided in 5 groups: group1-shadeO1, group2-shadeO2, group3-shadeO3, group4-shadeO4 and group5-shadeO5. In each group (n=9) we added to the dentin shade disks, 1mm of Amaris enamel shade (TL, TN, TD), obtaining 3 discs per group of each enamel shade. The color parameters (L, c, h) were determined with the composite-resin light-cured, by a spectrophotometer EasyShade (Vita®), before and after adding the enamel shade. The results were analyzed by comparing the variances (ANOVA) with statistic package SPSS-v.15

**Results**
In groups 4 and 5, all enamel shades increased significantly its lightness (L) (p<0.001). In group 3 there were no significant differences (p=0.08), in group 2 there was only a significant increase in the shade TL (p=0.03), and in group 1 there was an increase with the shade TL but a decreased with the shade TN and TD (p=0.02). Regarding chroma (c), all 5 groups decreased significantly when placing the 3 enamel shades. As for hue (h) there was not significant decrease in groups 2 (p=0.05) and 5 (p=0.17). In groups 3 and 5, only the enamel shade TL presented significant differences (p=0.001). In group 1, all 3 enamel shades presented a significant differences (p=0.002). The correlation with Vita® shades was A3.5 for 2mm of dentin shades O1, O2 and O3, and A4 for shades O4 and O5. For 1mm of enamel shades, its correlation was A2 for TN, B1 for TL and A1 for TD.

**Conclusions**
The placing of 1mm thickness of enamel shade decreased the chroma of the dentin shades. The shade TL increased the lightness but the shade TD did not decrease it.

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**- Oral Presentation 34**

**TITLE:** Endodontic failure due to forgotten duct: a series of cases

**AUTHORS:** García Marcos JI, Santos Cubero J, Alonso Ezpeleta LO, Mena Alvarez J.

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