

## LUCAS LIVINGSTONE FELIZOLA SOARES DE ANDRADE Tradutor Público Juramentado e Intérprete Comercial

AT-24544(001)

Enrolled in the Trade Board of the State of São Paulo under number 1879, on 06/14/2016, named for the English and Portuguese languages.

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[There appears bilingual text]//

ABSTRACT//

The aim of this study was to compare using a digital thermometer, the temperature at source obtained by two refrigerant gases of the trademark Congelante Aerossol and Endo-Ice. During three seconds the surface of the cotton dressing and flexible rod was sprayed and, then carried to the surface of the thermocouple. There was a statistically significant difference between the average temperature obtained from Endo-Ice with cotton dressing and flexible rod and between the average temperature obtained from Congelante Aerossol and the two transport media (p<0.05). Confronting the refrigerant gas Endo-Ice and Congelante Aerossol using the cotton dressing was not statistically significant (p<0.05). The application of refrigerant gas Endo-Ice / cotton dressing as compared to refrigerant gas Congelante Aerossol/ flexible rod was statistically significant (p<0.05). There was also statistical significance (p<0.05) between Congelante Aerossol/cotton dressing compared to Endo-Ice/flexible rod and the same occurred with Endo-Ice/flexible rod and Congelante Aerossol/ flexible rod (p<0.05). It was concluded that the average temperature obtained in the cotton dressing was lower regardless of the agent

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used. Congelante Aerossol had lower temperature compared to Endo-Ice regardless of the sources used. The temperature in the cotton dressing was lower than the temperature in the flexible rod.//

Descriptors: Dental pulp test; Low temperature; Cooling agents//

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This was the full content of the document that I faithfully translated, verified and attest. This translation is not a judgment on the form, authenticity and/or content of the document. Lucas Livingstone Felizola Soares de Andrade, CPF (Individual Taxpayer Registration) 009.109.715-0, enrollment JUCESP 1879. São Paulo, 02/08/2018.//



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## RESUMO

O objetivo desta pesquisa foi comparar valendo-se de termômetro digital, a temperatura na fonte obtida por dois gases refrigerantes da marca comercial Congelante Aerossol e o Endo-Ice.Durante três segundos borrifou-se a superficie do penso de algodão e da haste flexível e, a seguir, levava-se a superficie do termopar. Houve diferença estatisticamente significante entre as médias de temperaturas obtidas do Endo-Ice com penso de algodão e haste flexível assim como entre as médias de temperaturas obtidas do Congelante Aerossol e os dois meios de transporte (p<0,05). Ao confrontar o gás refrigerante Endo-Ice e Congelante Aerossol valendo-se do penso de algodão não ocorreu significado estatístico (p<0,05). Quanto à aplicação do gás refrigerante Endo-Ice/penso de algodão comparativamente ao gás refrigerante Congelante Aerossol/haste flexível ocorreu significado estatístico (p<0,05). Também ocorreu significado estatístico (p<0,05) entre o Congelante Aerossol/penso de algodão em comparação com o Endo-Ice/haste flexível e a mesma ocorrência com o Endo-Ice/haste flexível e Congelante Aerossol/haste flexível (p<0,05). Concluiu-se que a média de temperatura obtida no penso de algodão foi menor independente do agente usado. O Congelante Aerossol obteve menor temperatura do que Endo-Ice independente das fontes utilizadas. A temperatura no penso de algodão foi mais baixa do que a temperatura na haste flexível.

## Descritores: Teste da polpa dentária; Temperatura baixa; Agentes de resfriamento ABSTRACT

The aim of this study was to compare drawing on digital thermometer, the temperature at source obtained by two refrigerants trademark Congelante Aerossol and Endo-Ice. Three seconds sprayed to the surface of the cotton patch and flexible rod and, then carried to the surface of the thermocouple. There was a statistically significant difference between the average temperature obtained from the Endo-Ice with cotton and flexible rod dressing and between the average temperature obtained from Congelante Aerossol and the two transport difference (p<0.05). Confronting the refrigerant gas Endo-Ice and Freezing Spray drawing on cotton dressing was not statistically significant (p<0.05). The application of refrigerant Endo-Ice / think of cotton as compared to refrigerant gas Freezing Spray / flexible rod was statistically significant (p<0.05). There was also statistically significant (p<0.05) between the Congelante Aerossol/cotton dressing compared to the Endo-Ice/flexible rod and the same occurred with the Endo-Ice/flexible rod and a Congelante Aerossol/ flexible stem (p<0.05). It was concluded that the average temperature obtained in the cotton patch was less independent of the agent used. The Congelante Aerossol spray had lower temperature compared to the independent Endo-Ice of the sources used. The temperature in the cotton dressing was lower than the temperature in the flexible shaft.

**Descriptors**: Dental pulp test; Low temperature; Cooling agents