

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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The Effect Of Silver Diamine Fluoride On Bond Strength To Demineralized Enamel

(An In-Vitro Study)

Thesis

submitted to the Department of Operative Dentistry,
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List Of Content

List Of Tables	II
List Of Figures	III
Introduction	1
Review Of Literature	3
I-Caries: Cause And Progression	3
II- Paradigm Shift Toward Non-Invasive Techniques Specially With Incipient Caries	5
III- Features Of Demineralized Enamel	6
IV- Bonding to demineralized enamel	7
V- Remineralization Concept	8
VI- Reaction Of SDF With Dental Tissues	12
VII- Protocol Of SDF Application	15
VIII- Staining Of SDF	18
IX- Adhesive Technology	22
X- Bonding To Remineralized Enamel	24
XI- Microshear Bond Strength Test	26
Aim Of The Study	30
Materials And Methods	31
Results	47
Discussion	51
Summery And Conclusion	57
References	59
Arabic Summery	

List of Tables

<u>Table No.</u>	<u>Table name</u>	<u>page</u>
Table 1	Materials, Composition, Manufacturer and Lot Number.	31
Table 2	Levels of investigations	34
Table 3	Interactions between variables for micro-shear bond strength test	34
Table 4	Two-way ANOVA of all tested variables for the effect of surface treatment, substrate and their interaction on the micro-shear bond strength values	48
Table 5	Means \pm Standard Deviation for the effect of SDF application on microshear bond strength (MPa) to sound and demineralized Enamel	49

List of figures

<u>Figure No.</u>	<u>Figure title</u>	<u>Page</u>
Figure (1)	Curing of adhesive on top of enamel treated with SDF (a) Sound Enamel, (b) Demineralized Enamel	19
Figure (2)	(a)sectioning of the tooth below CEJ using low speed diamond disc. (b) after separation of the crown	35
Figure (3)	Crown molded into rubber base mold and sectioned mesiodistally into two halves using low speed diamond disc	36
Figure(4)	Each tooth half is molded into acrylic mold with buccal/lingual surface facing upward.	36
Figure (5)	Un-varnished surface window is ready for intervention.	37
Figure (6)	Immersion of the sample in 32ml demineralizing solution	38
Figure (7)	D1 under Polarized Light Microscope , demineralization extended below DEJ (demineralization depth = 1100 ± 200 um)	39
Figure (8)	D2 under Polarized Light Microscope (demineralization depth = 960 ± 100 um)	40

List of figures

Figure (9)	ICDAS SCOR 2 (black color) under polarized light microscope.	41
Figure (10)	WSL detected visually in a wet sample (ICDAS SCOR 2).	41
Figure (11)	(a) SDF active application (10 sec) , (b) rinsing for SDF (15 sec), (c) after 5 sec gentle air dryness	42
Figure (12)	SDF penetration (red color) inside the demineralized lesion under polarized light microscope	43
Figure (13)	Specimen with plastic circular mold after co-curing with the universal adhesive (a) sound enamel with SDF , (b)demineralized Enamel with SDF .	44
Figure (14)	Flowable composite injected inside plastic circular mold	44
Figure (15)	Composite discs after removal of plastic circular mold	45
Figure (16)	Specimen undergo microshear bond strength testing	46
Figure (17)	Bar chart representing the mean and standard deviation in MPa of all tested groups.	50

Dental caries is complex, multi-factorial, chronic disease that affect hard dental tissues causing localized destruction by the acidic products of oral bacteria¹. Enamel caries characterized by destruction of the enamel surface or a white patch in enamel not reaching dentino-enamel junction which indicates that there is subsurface lesion with most of the minerals are lost under relatively intact enamel surface^{1,2}. The incipient caries lesion in enamel, which is called white spot lesions (WSL) is firstly appear as a white color increased by air dryness³.

Recently, a paradigm shift towards a non-invasive approach that depends mainly on preventive strategies and remineralization as a management for dental caries. Current caries management procedure depends on minimally invasive dentistry that include conservative dental treatment with no or minimal intervention by removing as less as possible from tooth structure and achieve peripheral seal⁴. The removal of all caries lesion and extension for the cavity margins to reach sound tooth structure has shown many drawbacks; unnecessary removal of healthy tooth structure, unnecessary pulp exposure which causes weakening of tooth structure and increasing the cost of treatment.

Bonding with enamel is different according to the nature of enamel whether it sound or demineralized⁵. Bonding with sound enamel gives very strong and durable bond⁶. Bonding with hypo-calcified enamel considered a