

BIODENTINE™: PRESENT AND FUTURE



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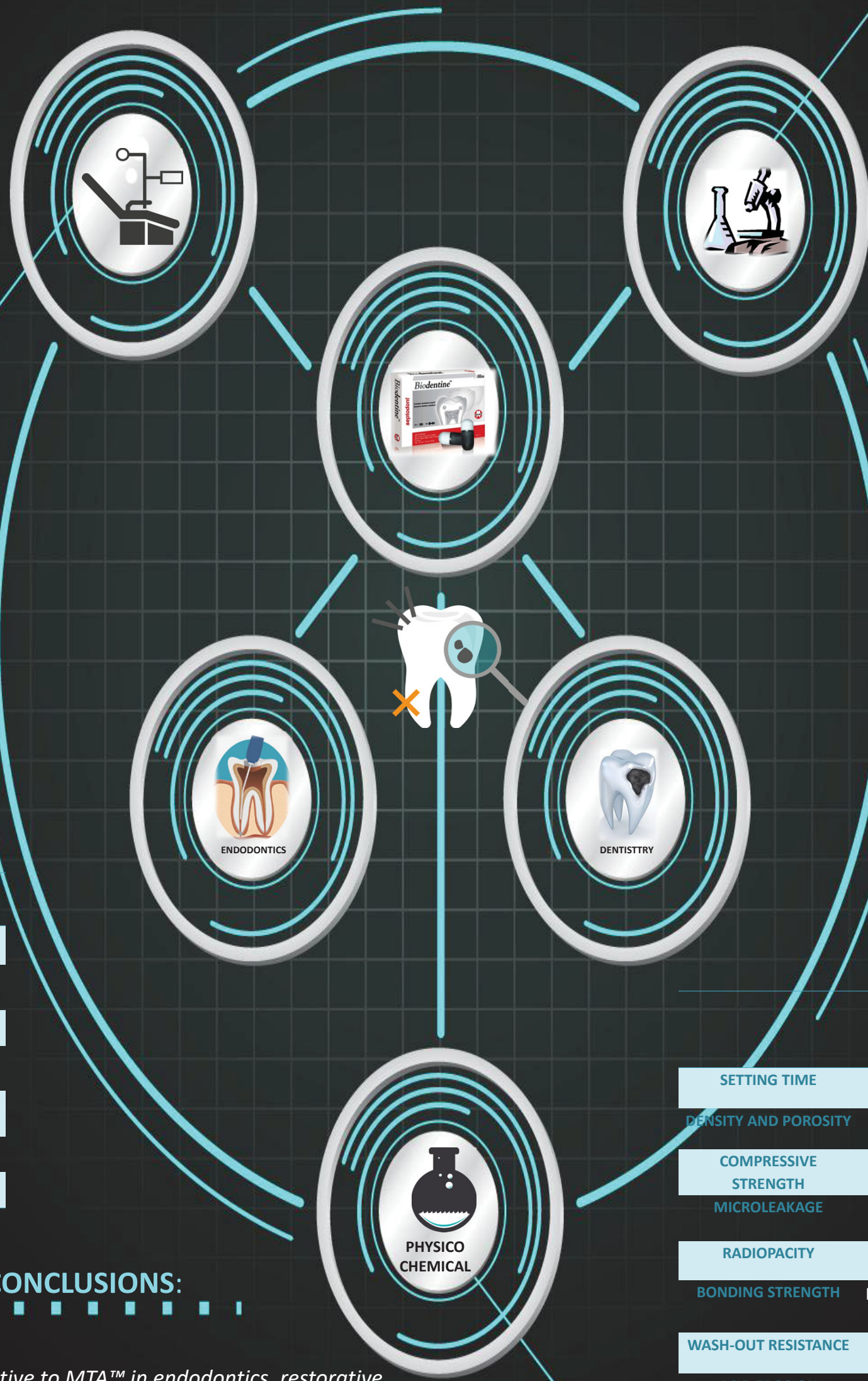
OBJECTIVES: To analyse the literature and present the results about the proprieties of Biodentine™, comparatively with MTA™.

INTRODUCTION:

Biodentine™ was developed by Septodont® as a new dental material. Its chemical composition is based on Ca3SiO5, which gives it a good bio-activity compared to MTA™, another well-known endodontic restorative cement.

MATERIALS AND METHODOLOGY:

Examination of the literature obtained conducting searches on PubMed, with the key word "Biodentine". Criteria for inclusion: case-studies and research articles comparing Biodentine™ with other materials, written in English and published between 2013 and 2016. Further references were obtained by examining the references on the selected literature. A total of 105 articles were analysed



BETTER THAN MTA™ SIMILAR

	BETTER THAN MTA™	SIMILAR
PULPOTOMY	X	X
ROOT PERFORATION	X	
ROOT FRACTURE	X	X
APEXOGENESIS	X	X
APEXIFICATION	X	X
ROOT RESORPTION	X	X
APICAL SURGERY	X	X
DISCOLORATION	X	

BETTER THAN MTA™

DENTINE REPLACEMENT	X
DPC	X
IPC	X

BETTER THAN MTA™ WORSE THAN MTA™ SIMILAR

SETTING TIME	X		
DENSITY AND POROSITY	X		X
COMPRESSIVE STRENGTH	X		X
MICROLEAKAGE	X		X
RADIOPACITY		X	
BONDING STRENGTH	Metacrilates	Flow	Silorane
WASH-OUT RESISTANCE	X	X	
ACID EROSION		X	
BIOCOMPATIBILITY			X
ANTIBACTERIAL ACTIVITY			X

CONCLUSIONS:

Biodentine™ is an alternative to MTA™ in endodontics, restorative dentistry and odontopediatrics. Long term studies are necessary to verify its longevity and effectiveness.

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