

Comparison of clinical evidence of antimicrobial photodynamic therapy in periodontitis and peri-implantitis treatment

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Aim

To compare the evidence of adjunctive antimicrobial photodynamic therapy in patients suffering from periodontitis and peri-implantitis.

Material and Methods

Database	Journal manual search	#	MeSH	Search terms
Medline EMBASE EMBASE alert BIOSIS SciSearch CCMED CENTRAL Science Citation Index International Clinical Trial Register Platform Web of Science ISI Web of Knowledge Wiley Interscience UKCRN	Journal of Clinical Periodontology Journal of Periodontology International Journal of Periodontics & Restorative Dentistry Journal of Dental Research Lasers in Medical Science Journal of Photochemistry and Photobiology Journal of Periodontal Research Clinical Oral Implants Research Journal of Oral Implantology Journal of Dental Implantology Journal of Implant and Advanced Clinical Dentistry	#1	MeSH	Periodontal disease
		#2	Search all text	(peri-implantitis) OR (mucositis) OR (periodontal disease) OR (periodontal therapy) OR (periodontal maintenance) OR (oral biofilm infection)
		#3	MeSH	Photochemotherapy
		#4	Search all text	(antimicrobial photodynamic therapy) OR (photodynamic therapy) OR (photochemotherapy) OR (photosensitizer) OR (photosensitization) OR (photodynamic antimicrobial chemotherapy) OR (phenothiazines) OR (phthalocyanines) OR (reactive oxygen)
		#5	Search all text	(helbo) OR (fotosan) OR (pact) OR (periowave) OR (aseptim)
		#6	History	#1 OR #2
		#7	History	#3 OR #4 OR #5
		#8	History	#6 OR #7
		#9	Search all text	(guideline) OR (Health Technology Assessment) OR (Random* Controlled Trial) OR (Control* Clinical Trial) OR (Assess) OR (health technology) OR (medical) OR (review) OR (meta-analysis) OR (cohort study) OR (controlled trial) OR (clinical trial) OR (case control)
		#10	History	#8 AND #9

Results

	Aggressive Periodontitis	Chronic Periodontitis	Peri-implantitis treatment
Number of identified RCT's	8	13	2
Comparisons	aPDT + SRP vs. SRP aPDT + SRP vs. SRP + systemic antibiotics aPDT vs. SRP		SRP + aPDT vs. SRP (+LDD)
Outcomes	Probing Depth Attachment Level Gingival Recession Bleeding on Probing		Probing Depth
Length of follow-up	3, 6 months		6, 12 months

Fig. 1: Probing Depth reduction (mm) in chronic periodontitis follow-up 12 weeks

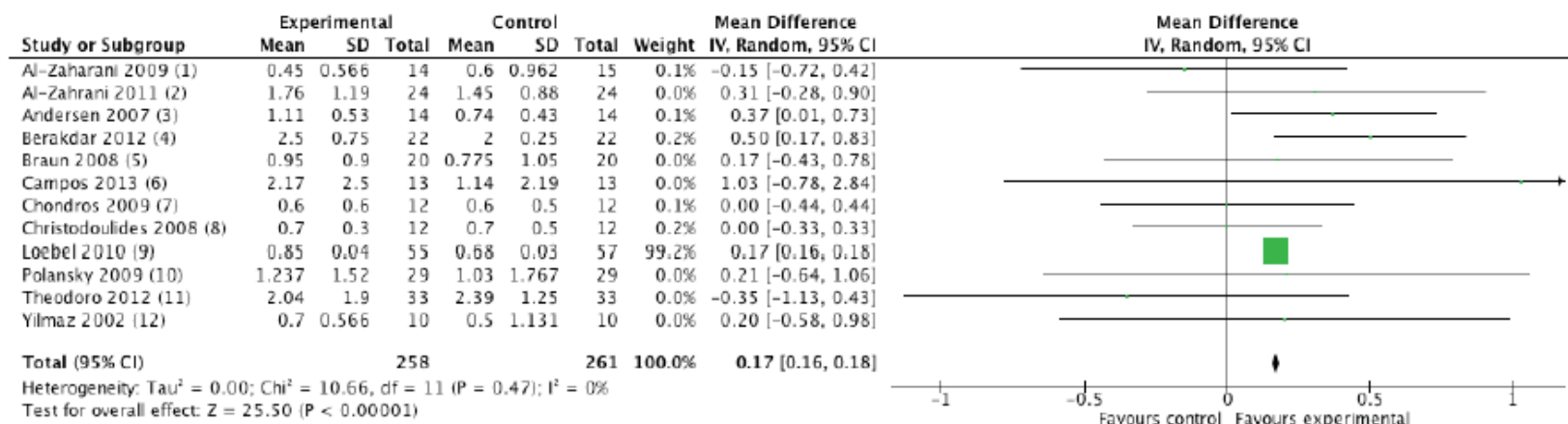
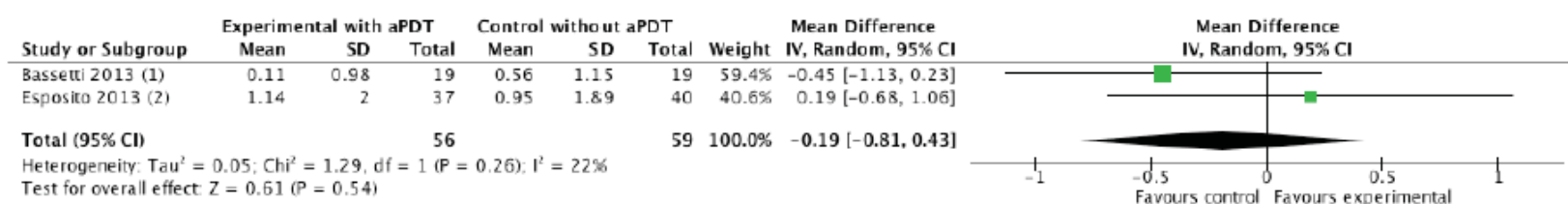


Fig. 2: Probing Depth reduction (mm) in peri-implantitis follow-up 12 months



Conclusion

There are great differences in the clinical evidence available between adjunctive aPDT in treatment of periodontitis and peri-implantitis.