

***NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO, UNAM.
FACULTY OF DENTISTRY
HIGH SPECIALIZATION IN SURGICAL AND PROSTHETIC ORAL IMPLANTOLOGY***

BACTERIAL ADHESION OF STAPHYLOCOCCUS AUREUS ON SURFACES TREATED WITH DENTAKOTE™

Karina Magaña Curiel¹; Argelia Almaguer Flores²; Gina Prado Prone²; Alberto H. Diaz Nuñez¹

¹ High Specialization in Surgical and Prosthetic Oral Implantolgy.

² Biointerfaces Laboratory, Division of Graduate Studies and Research.



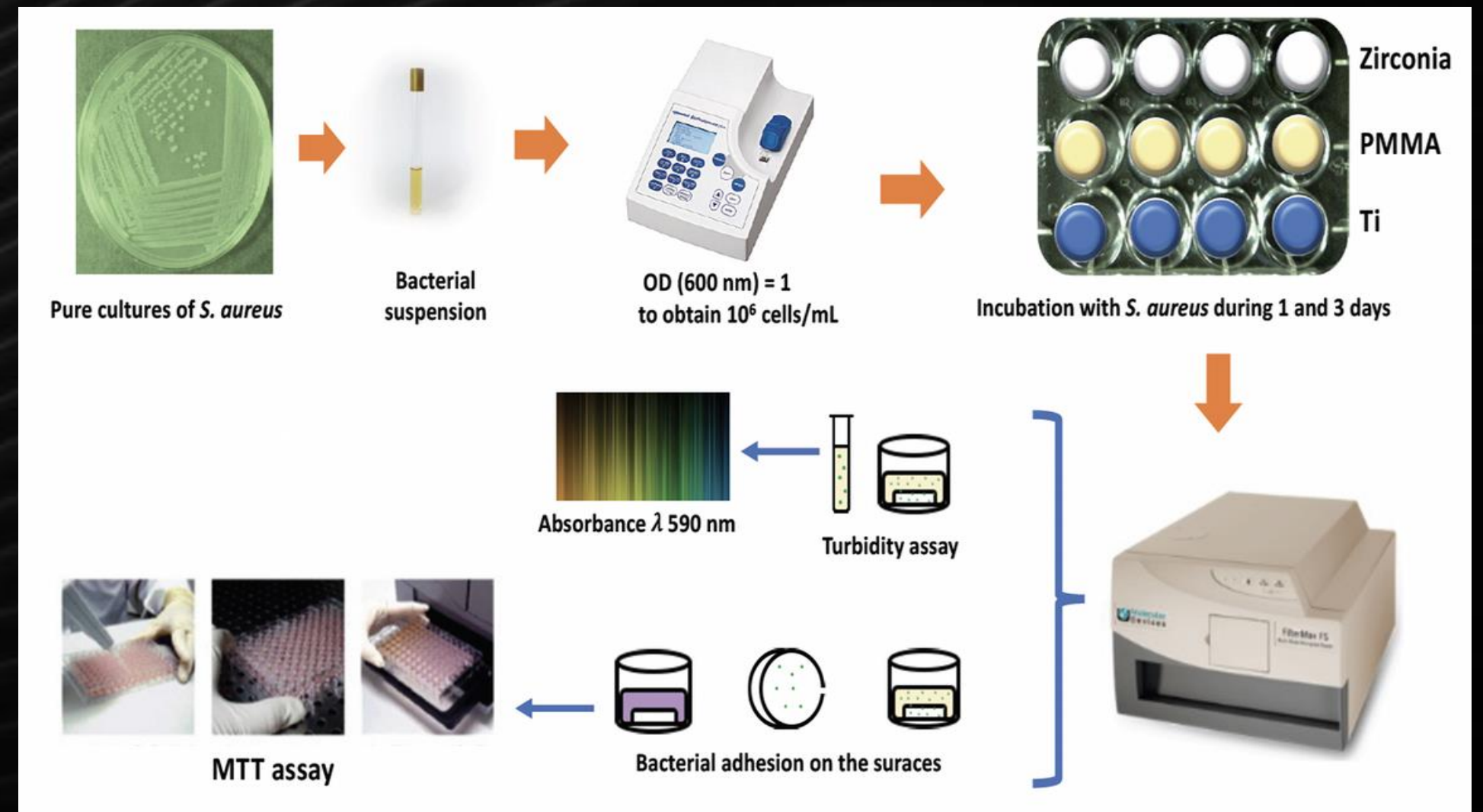
INTRODUCTION

DentaKOTE™ is a biopolymer that has been proposed to decontaminate dental implant surfaces due to its ability to form a hydrophobic barrier .

AIM

Determine the effect of DentaKOTE™ coating on Zirconia (Zr), Polymethylmethacrylate (PMMA) and titanium (Ti) surfaces on the adhesion of *S. aureus*.

MATERIALS AND METODS

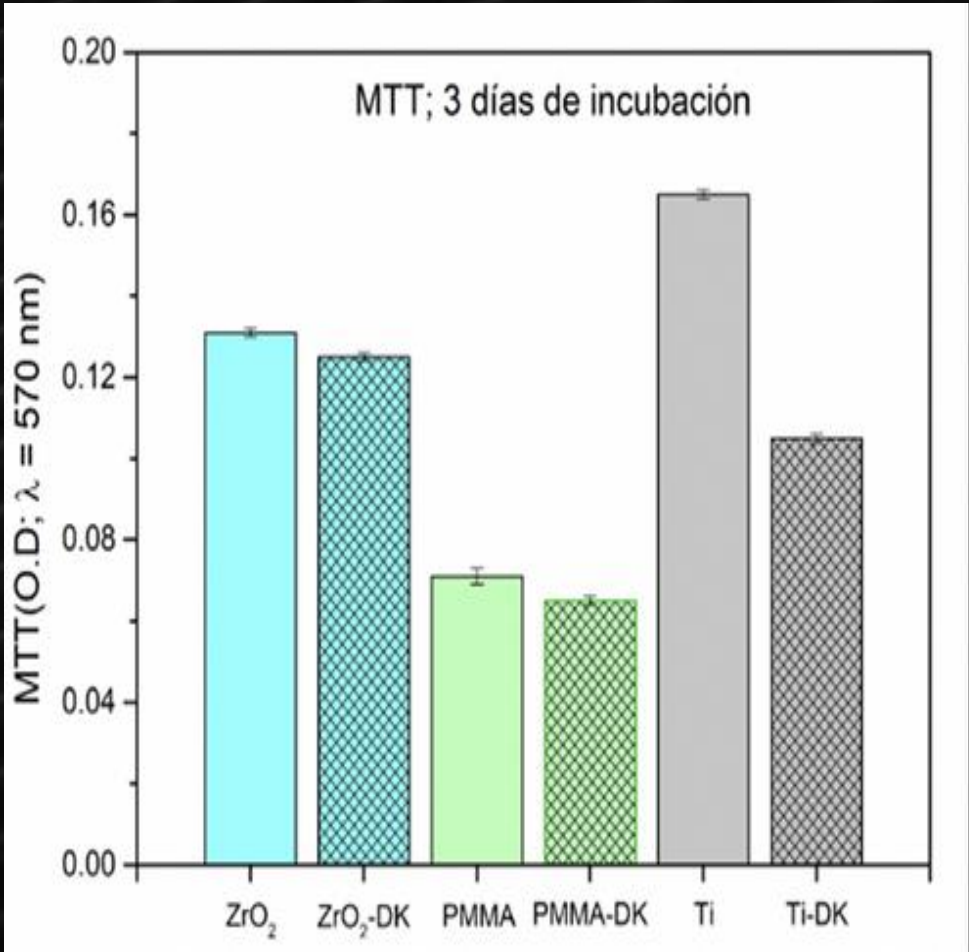
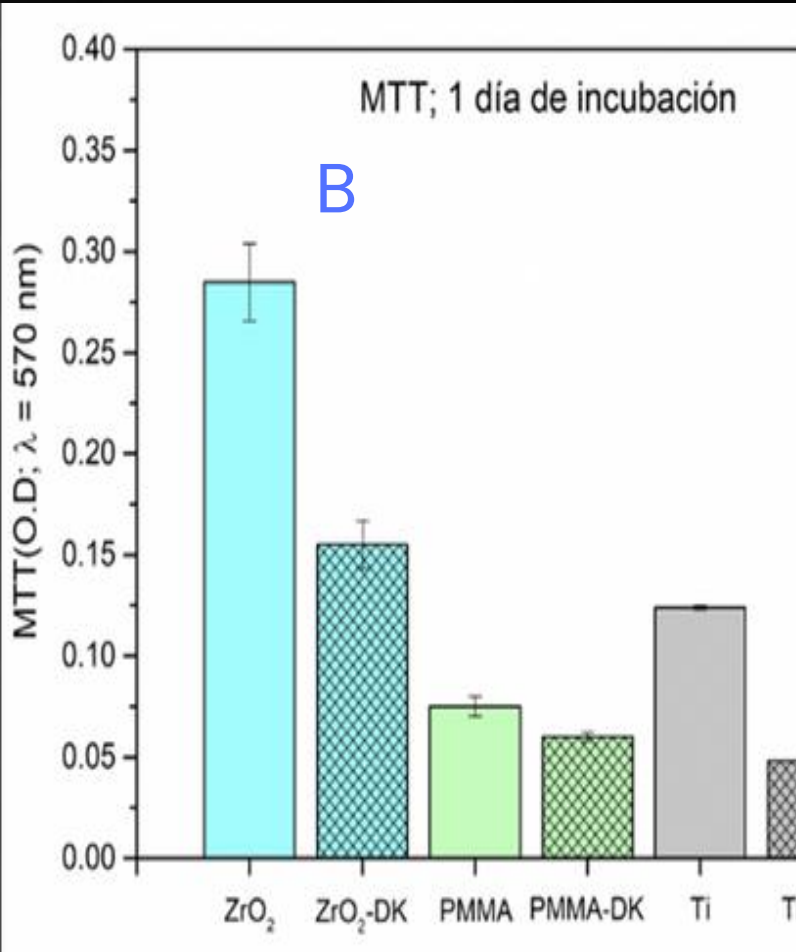


RESULTS

Bacterial adhesion on the surface of the samples with and without DentaKOTE™, after 1 and 3 days of culture.

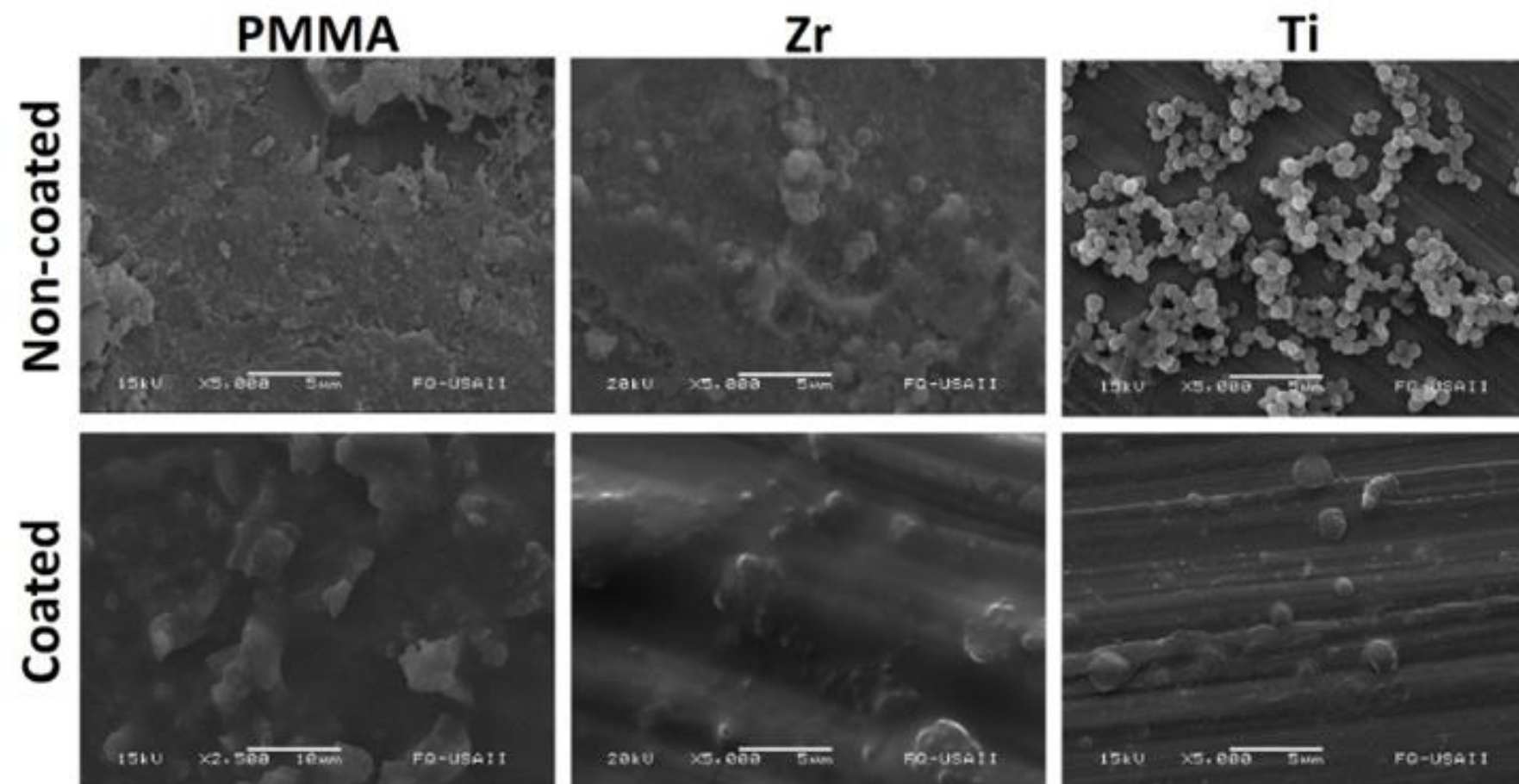
Incubation	Comparative samples	% reduction
day 1	ZrO2 vs ZrO2-DK	45.60%
	PMMA vs PMMA-DK	20%
	Ti vs Ti-DK	61.30%
day 3	ZrO2 vs ZrO2-DK	4.60%
	PMMA vs PMMA-DK	8.50%
	Ti vs Ti-DK	36.41%

Bacterial adhesion on the surface of the samples with and without DentaKOTE™, A) 3 days of culture and B) 1 day of culture.

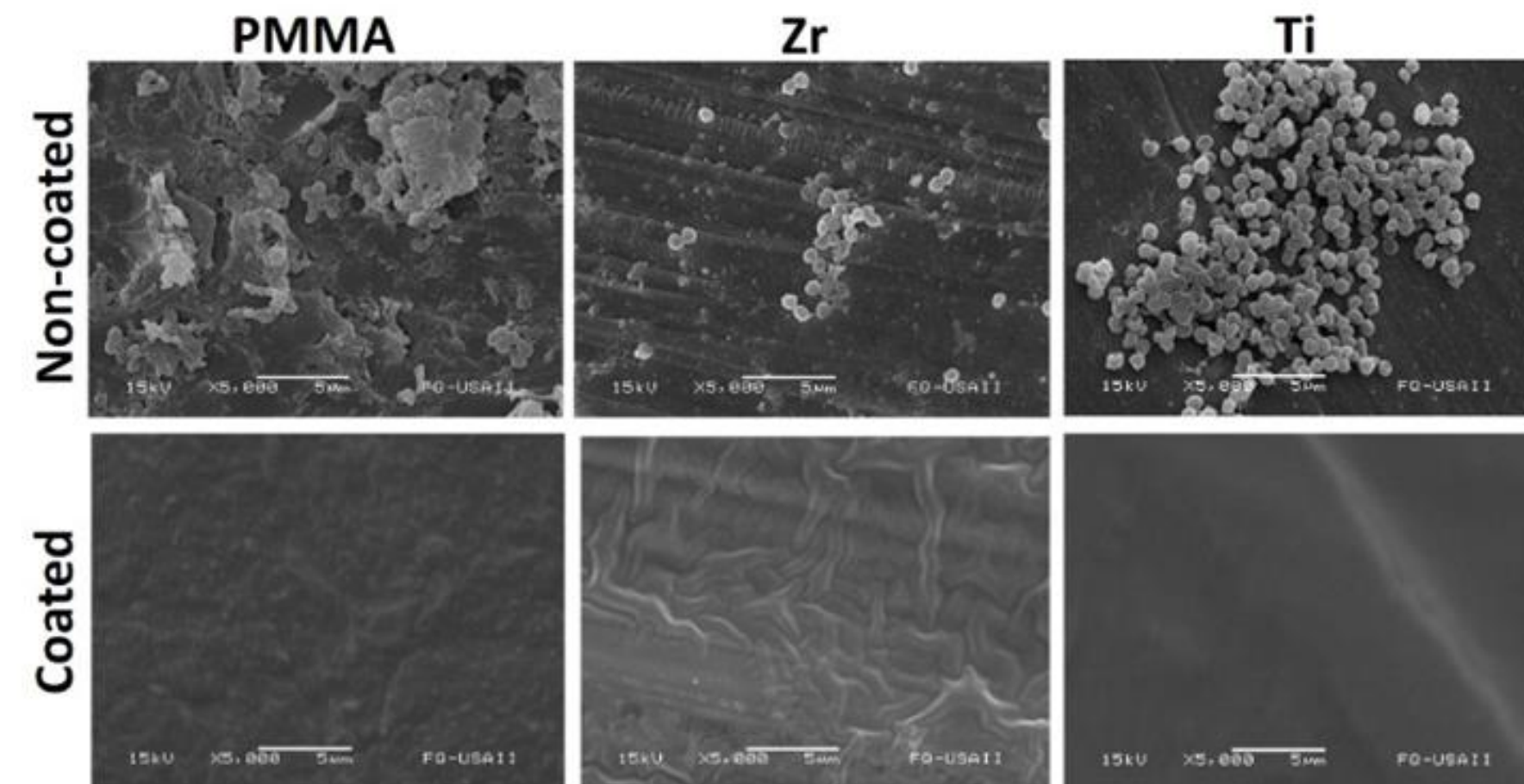


MICROGRAPHS.

1 day of culture



3 days of culture



CONCLUSIONS

In this study we found that the samples where the DentaKOTE™ biopolymer was applied showed less adhesion of *S. aureus*, unlike the surfaces where the biopolymer was not applied. We also observed that the inhibitory effect of bacterial adhesion was found both on day 1 and day 3, although on day 3 the effect was diminished.

BIBLIOGRAPHY



Thank you for your attention.