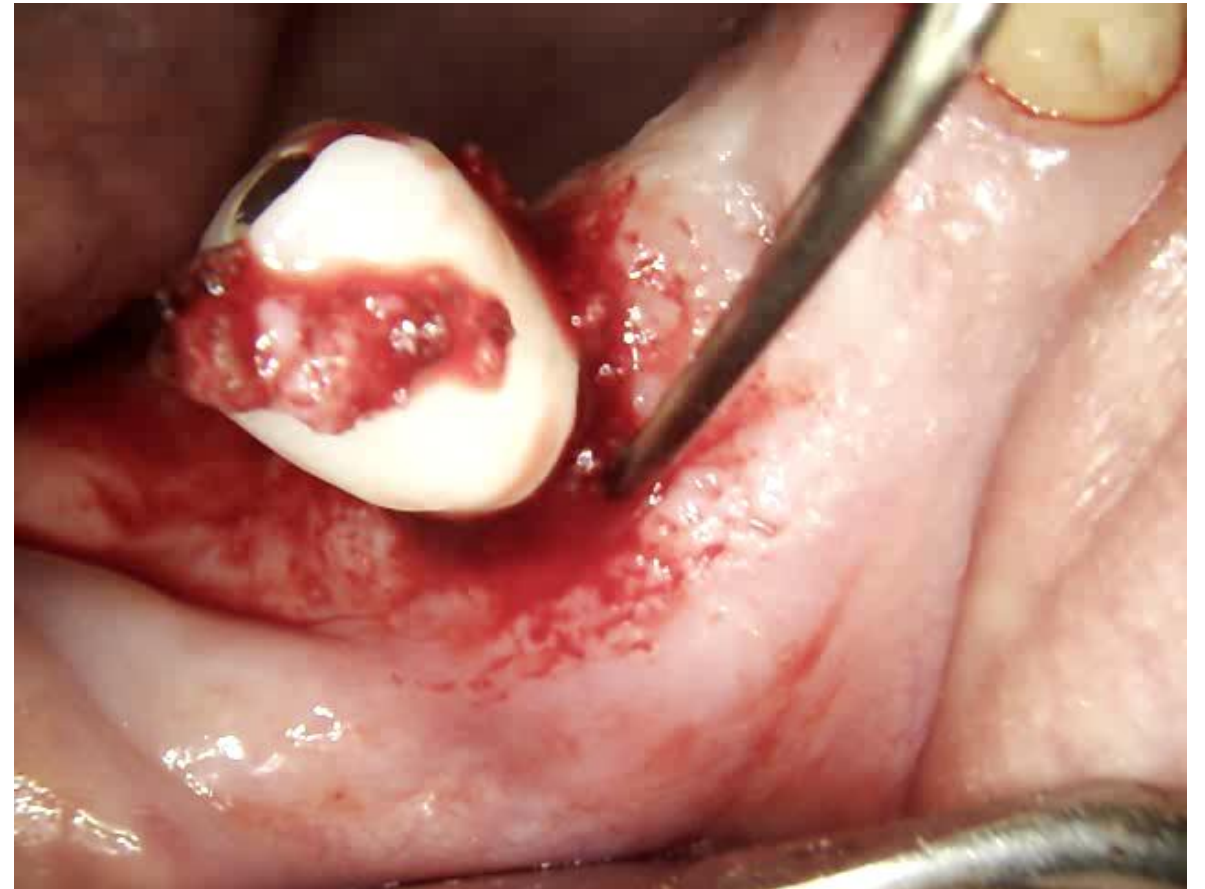


Non-surgical management of peri-implantitis using the Erbium, Chromium: Yttrium Scandium Gallium Garnet laser: one year follow up case series

Rana Al-Falaki¹, Francis J Hughes², Mark Cronshaw³

¹ Private Practice, Al-FaPerio Clinic, Buckhurst Hill, Essex, UK ² Dept of Periodontology, Kings College London Dental Institute

³ Private Practice, Isle of Wight, UK

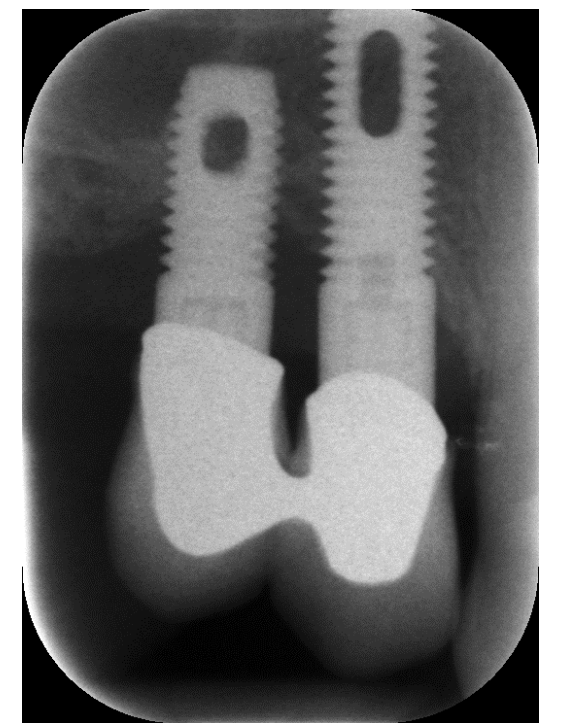
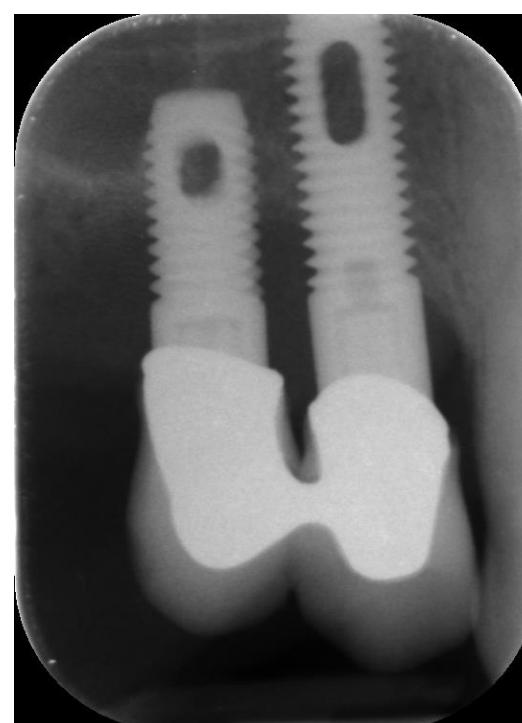
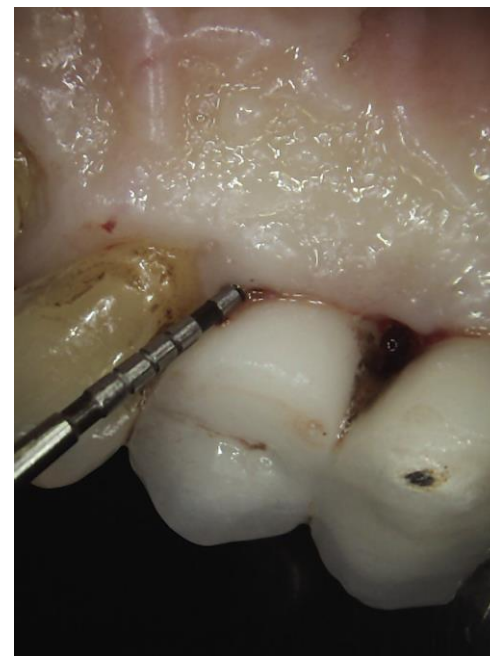


Materials and methods:

Implants diagnosed with peri-implantitis and having at least one 5mm pocket around them were included into the study. In total 28 implants consisting of 68 sites >4mm were treated non-surgically with an Er,Cr:YSGG water-cooled laser, using a 14mm, 500um diameter, radial firing tips (Biolase). Probing depths, recession and bleeding on probing were recorded at baseline, after 2 months, 6 months and 1 year.

Results:

The age range of patients was 27-69 years (mean 55.9); the mean pocket depth at baseline was 6.19mm (range 5-12mm), reducing by a mean of 3.71mm to 2.48mm by one year follow up ($p < 0.001$). The mean recession after treatment per implant was 0.38mm (range 0-2.25mm). The mean CAL gain per implant was 3.33mm ($p < 0.001$). The number of bleeding sites continued to reduce at each follow up, with 13% bleeding sites remaining after one year ($p < 0.003$). Radiographs showed signs of bony infill having occurred in some cases. There was no significant difference between the results found at 2 months, 6 months and one year.



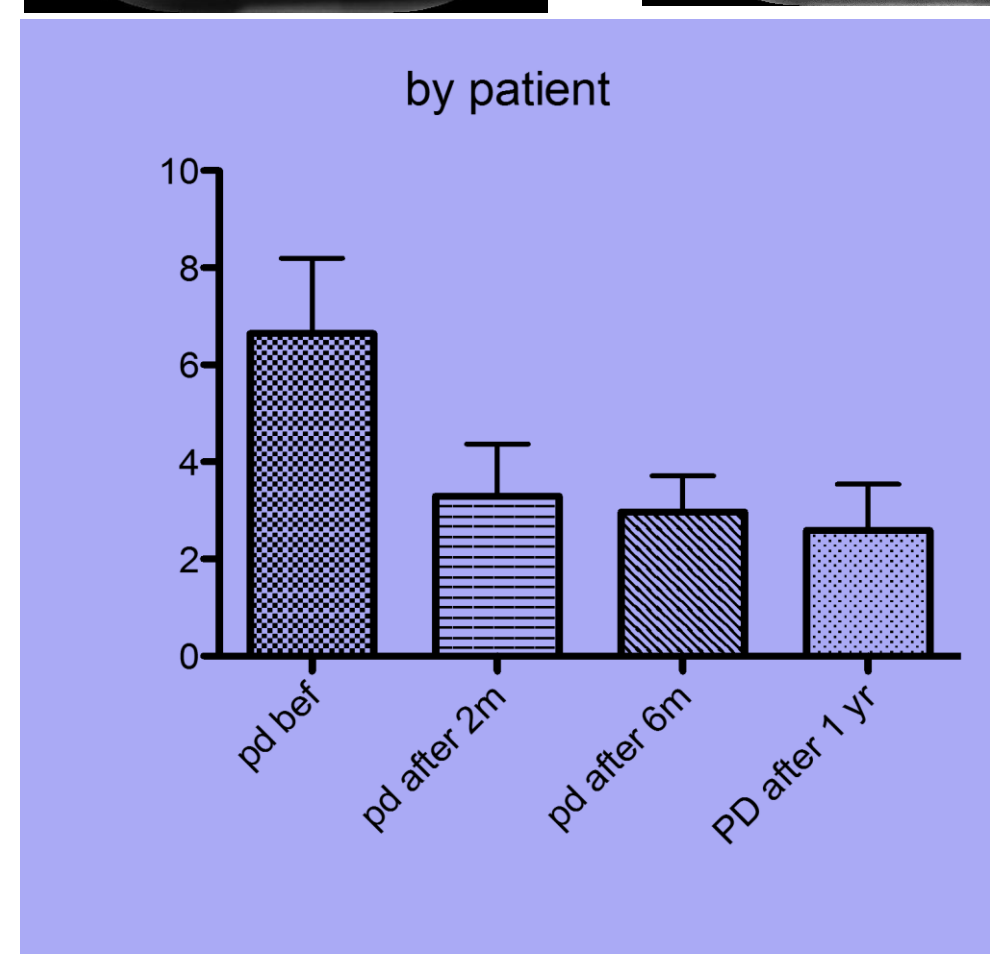
Conclusion:

The use of the radial firing tip with the Er,Cr:YSGG laser is a novel concept in the management of peri-implantitis and in view of the positive findings in this case series, further studies including RCTs are required to further evaluate the potential benefits of this new minimally invasive treatment approach.

References:

R. Al-Falaki, M. Cronshaw "Treatment outcome following use of the Er,Cr:YSGG laser in the non-surgical management of peri-implantitis: a retrospective pilot study" **World Federation of Laser Dentistry short paper Paris (2014) abstract no. 64510**

R. Al-Falaki, M. Cronshaw and F. J. Hughes "Treatment outcome following use of the erbium, chromium:yttrium, scandium, gallium, garnet laser in the non-surgical management of peri-implantitis: a case series" **British Dental Journal 2014; 217: 453-457**



Before and after one year

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Rana Al-Falaki¹, Francis J Hughes, Mark Cronshaw
Rana Al-Falaki info@al-faperio.co.uk



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