

Azzopardi E, Pedrelli V, Tretti Clementoni M. Free Paper - Picosecond + Pico Fractioned laser versus traditional quality switched lasers in tattoo removal. In: Odili J, Ed. BAPRSAS Winter Meeting. Monaco2021. http://www.bapras.org.uk/docs/default-source/bapras-event-documents/scientific-meetings/v2_bapras-winter-19-programme.pdf?sfvrsn=2

ABSTRACT

Background

Tattooing is increasingly common among adolescents and young adults. This study explores the clinical efficacy of picosecond laser for the correction of tattoos. Literature suggests that 25–47% of the population have had a tattoo at some point in their life (1). The incidence is slightly higher in adults 18–35 years (22–47%) compared to college students (18–25 years of age(1, 2). Recent surveys report 25% of tattooed adults expressing regret, while 4% of tattooed students had already undergone some form of tattoo-removal procedure (3). A common request for tattoo removal includes poorly executed tattoos, avoidance of stigmatization, trauma, socially inappropriate, and employment. Several procedures have been proposed to remove tattoos including cryosurgery, thermal cautery, or surgical resection (4). A major disadvantage of these methods is that they are all highly operator dependent, and carry a very high risk of residual scarring, residual pigment being left behind “ghosting” (3). In addition, some opt to cover the unwanted tattoo with another design, which results in layered tattoos that are substantially harder to manage. Laser surgery, in skilled hands, is an effective method for tattoo removal and traditionally, this is performed with Quality-Switched Laser, where energy liberated in the nanosecond range results in a selective photothermal effect (5). Picosecond laser is a more recent innovation that results in energy released in a picosecond timescale (a time interval 1000 times shorter). One potential disadvantage of laser therapy for the effacement of cutaneous tattoos is the length of treatment and associated cost, which might dissuade the patient from following through to completion of treatment, limiting potential benefits whilst still being exposed to risk of harm. (5, 6). Recent studies suggest that picosecond laser result in substantially reduced treatment times, whilst achieving an identical or more effective end result (7–9). However, these studies are limited by very small sample size and follow-up.