



LASERS

## THE COMPARISON OF Q-SWITCHED LASER ALEXANDRITE 755 NM AND ND:YAG 1064 NM FOR TATTOO REMOVAL: A CASE REPORT

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**Background:** Techniques for tattoo removal have evolved significantly over the years. The laser treatment of tattoos is based on the concept of selective photothermolysis. It is different wavelengths preferentially absorbed by different chromophores. In the case of tattoos, the chromophore is exogenously-placed ink, which is found in membrane-bound granules in macrophages, fibroblasts, or mast cells. Quality-switched (QS) laser is one of the option for tattoo removal such us Alexandrite and Nd:YAG. The tatto's colour and skin type of the patient are important considerations when choosing the appropriate laser. Standard protocols can be developed for efficacy and safety treatment.

**Observation:** We reported a 19 years old male Indonesian with Fitzpatrick skin type IV, an enterpreneur, who needed to removed of multiple amateur black ink tatto on his right arm since 5 years ago. The patient needs 8-13 treatments every 2 weeks based on Kirby Desai Scale scoring by phototype, location, colour, ink amount, scarring, and layering. After 4 treatments using QS Alexandrite 755 nm, showing good resolution of black ink tattoo than QS Nd:YAG 1064 nm with minimal adverse effect such us hypopigmentation and blister. The patient have good satisfaction and he still received the treatment until completing session of the treatments needed.

**Key message:** Quality-switched Alexandrite 755 nm can be one of the option for black ink tattoo removal that have good efficacy and less adverse effect compared to QS Nd:YAG 1064 nm.

