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LASER REMOVAL OF TATTOOS AND THE CHALLENGE OF TREATING TATTOOS WITH CHRONIC REACTIONS

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Our laser department have removed cultural, cosmetic and traumatic tattoos since 1993 with mainly Q-switched Nd:YAG laser (1064 nm) and 532 nm for red colors. As for everyone else we have had problems with green, orange, purple and turquoise colors where we have needed other wavelengths. For traumatic tattoos softer material (e.g. gravel) have responded well with less amount of treatments 2-4 than for harder materials (e.g. asphalt, amalgam) 6-11 treatments. Camouflage vitiligo, to mask scars, and as an adjunct to reconstructive surgery. Risks and complications include infections, allergic reactions, scarring, fanning, fading, and dissatisfaction about color and shape. Developments leading to new tattoo inks (Infinet Ink), feedback systems to detect the absorbance characteristics of tattoo inks, dermal clearing agents, and perhaps even newer lasers with pico second pulse-duration might improve the result.

Although rare skin reactions in tattoos can cause great morbidity and cause a challenge for the physician. During a period of 9 years we only say 21 patients. Histology finding vary and can sometimes give hints of systemic reactions. Treatment often includes topical and systemic steroids, anti-histamin against the itch or anti-rheumatoid drugs. These treatment are not always successful and enough. Laser is often the preferable method, but little is known what happens to the colors when treated by laser. Cleavage products may present a hazard. Even risk for azo colors that may be cancerogenic. Surveying in case of severe allergic reaction is necessary. Professional tattoos contain a multitude of potentially immunogenic chemicals that are released or modified by laser treatment. Transient immuno reactivity that presented as regional lymphadenopathy after laser tattoo removal of professional black and blue-green tattoos has been reported. These reactions resolved without any complications. Tattoo pigments released or modified by laser therapy may trigger transient immuno reactivity in susceptible individuals. Surgical treatment of tattoos remains a useful tool for complete removal if possible and if there are allergies towards the ink. 16 malign melanoma has been reported in England in tattoos and 1 after laser.

Shall we go on and remove tattoos with laser?