Skin pigmentation, fluence determine IPL side effects

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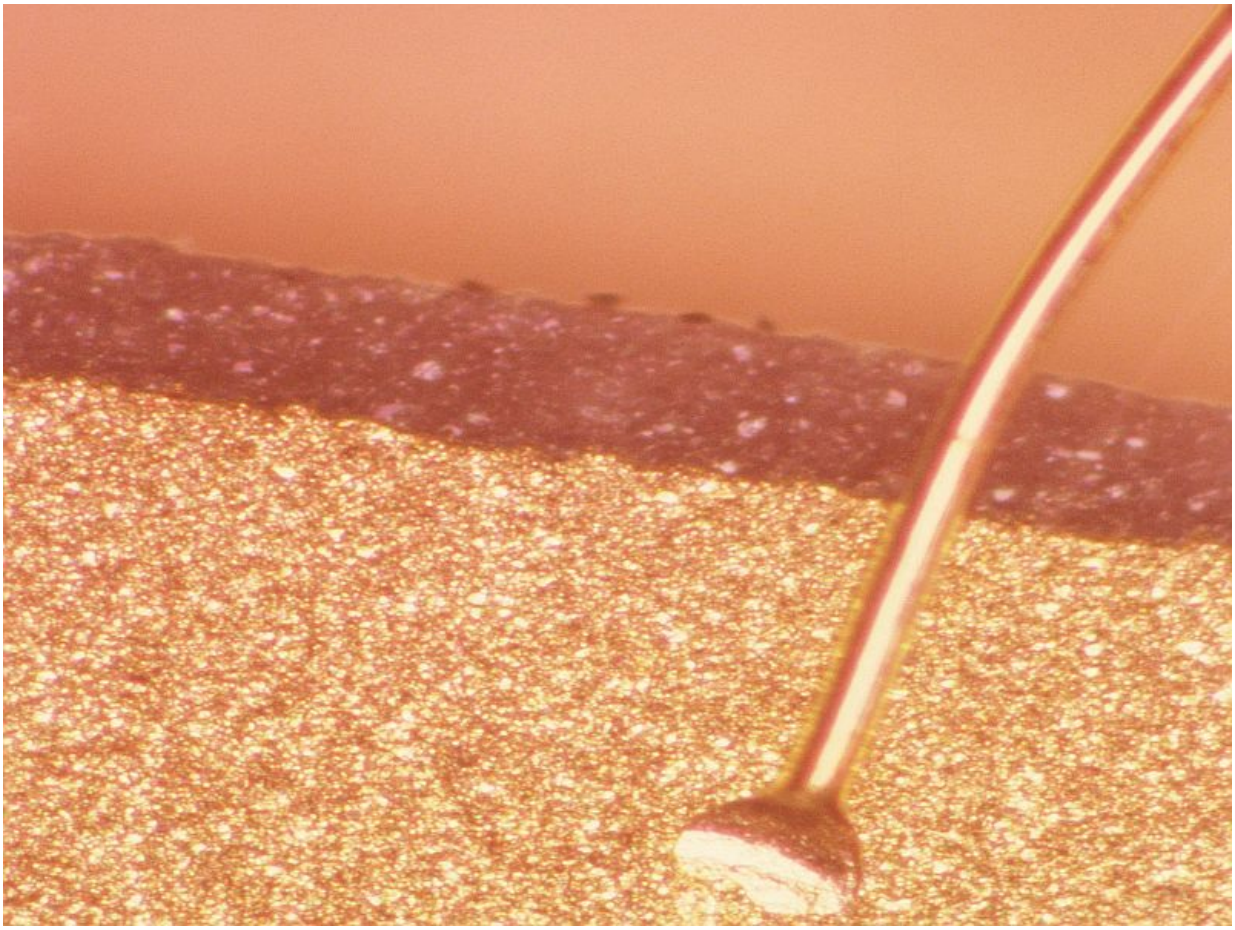

(HealthDay)—Darker skin pigmentation and increasing intense pulsed

light (IPL) fluence determine side effects after IPL exposure, according to a study published online July 30 in *Lasers in Surgery and Medicine*.

In a study involving 16 healthy subjects with Fitzpatrick skin types (FSTs) II to V, Daniel Thaysen-Petersen, M.D., from the University of Copenhagen in Denmark, and colleagues examined the contribution of skin pigmentation, fluence level, and ultraviolet radiation (UVR) on IPL-induced side effects. Three test areas were separated into four sites and randomly allocated to a single IPL exposure of 22, 34, and 46 J/cm^2 or triple stacking of 46 J/cm^2; subsequently, areas were randomized to no UVR or single solar-simulated UVR exposure. Each area had a corresponding control. Patients were followed for up to four weeks after IPL.

The protocol was completed by 15 subjects with FSTs II to IV. The researchers found that IPL induced a range of skin reactions, including erythema (87 percent), hyper- and hypopigmentation (60 and 20 percent, respectively), purpura (27 percent), blisters (20 percent), edema (13 percent), and crusting (13 percent). Determinants for IPL-induced side effects included darker skin pigmentation and increasing IPL fluence ($P \leq 0.002$); side effects were not exacerbated with single exposure of UVR ($P \geq 0.180$).

"Skin pigmentation and IPL fluence are major determinants of side effects after IPL exposure," the authors write.

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More information: Abstract
Full Text (subscription or payment may be required)