

## **Safety and efficacy of a second-generation intense pulsed source for treating Asian skin**

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Clinical use of first generation, filtered xenon flash lamp sources has been difficult in Asian skin because of limited efficacy and side effects, including skin burns and hyperpigmentation. **Methods:** A second-generation intense pulsed source (Ellipse-Flex, DDD, Denmark), delivered through aqueous gel without active skin cooling, was tested and compared with historical first-generation device (Vasculite, Lumenis, Israel) results, in over 600 Asian patients with facial lentigo, telangiectasia and/or chronic photoaging. Two optical wavebands of 530-750 nm (PR; 7~ 9 J/cm<sup>2</sup>) and 555-950 nm (VL; 9 ~ 12 J/cm<sup>2</sup>), were delivered at 2.5 ms pulse duration with double pulse of 10 ms delay. Patients with visible telangiectasia were treated with PR applicator at 14 ms (9 J/cm<sup>2</sup>~) **Results:** Unlike the manufacturer's intent, in Asian skin the best results for vascular lesions were obtained with PR, while best results for pigmented lesions were obtained with VL applicators. Typically, 2 treatments given 3 weeks apart were more effective than a greater number of treatments given with the first-generation source. In addition, a lower fluence was needed for efficacy. Side effects were limited to minor pain, transient erythema and mild edema in most cases. One case developed a small lesion of burn which was cured without a scar. One case developed persistent erythema for 3 weeks in a small area. Melasma was worsened in four cases which subsided with administration of oral tranexamic acid and/or Medlite IV rejuvenation. Desquamation of epidermal pigmented lesions caused a "dirty look" appearance 3-7 days after VL applicator treatment, followed by clearing of the lesions. Patients may use makeup immediately after treatment. **Conclusion:** A second-generation intense pulsed source is safer and more effective for treating Asian skin, compared with previous devices.