Advanced flash lamp (pulsed light) technology

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Venue:	Sheraton Hotel, Hong Kong
Speaker:	Dr. Dieter Manstein Instructor in Dermatology, Wellman Laboratories of Photomedicine, Department of Dermatology, Harvard Medical School, USA
Organiser:	The Hong Kong Society of Dermatology and Venereology

Advanced flash lamp technology (pulsed light technology) has a wide range of applications in dermatology. These include treatment of dyschromia, vascular lesion, hair removal and rejuvenation.

To improve the efficacy, new flash lamp device uses photon recycling. This occurs when light scattered out of and away from the skin is captured by the handpiece and is subsequently reflected back towards the skin and hair follicles. The advantages of this mechanism include high energy delivered, large spot size and partial adjustment of fluence.

Another improvement of flash lamp technology is to use absorption filter. The wavelength of the emitted light is more precise and less angle-dependent than that from the previous dichromate filter. A combination of filters is used in the new device. This combination has the advantages of precise filtering and reduced heat production.

These new developments have made flash lamp a powerful and convenient device in dermatology. However, post-inflammatory hyperpigmentation remains a risk of treatment, particularly in Asian's skin.

Learning points:

Advances in pulsed light technology have improved the efficacy and reliability of new flash lamp device. Post-inflammatory pigmentary changes remain a risk in Asian's skin.