

Obtaining Glare-free Total Body Photography Using a Simple Polarized Flash Modification

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Total body photography (TBP) facilitates the early detection of melanoma, leading to diagnosis at an earlier stage (1). Thus, several third-party companies have developed automatic systems for TBP (e.g. Fotofinder ATBM II, Fotofinder GmbH Bad Birnbach, Germany and Canfield IntelliStudio, Canfield Scientific, Inc. Parsippany New Jersey USA). These systems use a digital single-lens reflex (DSLR) camera with a flash on a motorized lift to automatically capture head-to-toe-photographs. The systems use a cross-polarized flash to obtain reflection-free images, saturated colours, and clear contrast.

At our institution we use a Canon 5 DSR with 50.6-megapixel resolution, 100-mm f/2.8 macro lens, and Canon Speedlite 600EX-RT, Canon Inc., Tokyo, Japan with a 15×15 cm softbox, working in the manual mode set for full-power output. The camera flash triggers a 600 watt-seconds (Ws) studio strobe flash with a 60×90 cm rectangular softbox. Cross-polarization is obtained using linear polarizer films (3D lens; Corporation Optics Supplier, Taiwan, Republic of China) with an azimuth perpendicular to a circular polarizer on the lens. Linear polarizer films are fixed onto both softboxes through several small 10×5 mm N52 magnets

(Magnosphere GmbH, Cologne Germany) sandwiched between the polarizer film on the outside and the soft-box cloth.

Because of the studio strobe flash intensity and rapid recycle times, it is possible to quickly shoot many high-resolution photographs at f/9 or higher for a great depth of field. Unlike expensive automatic systems, the number of photographs acquired can be increased as the naevus density increases, in order to obtain the highest image detail for zooming in on individual lesions to monitor suspicious changes. This uses the same principle as the GigaPan System (GigaPan Systems, Portland Oregon) (Fig. 1) (2).

The authors have no conflicts of interest to declare.

REFERENCES

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Fig. 1. Each glare-free photo has a resolution high enough (8,688 x 5,792: 50.3 megapixel) to allow physicians to zoom in on individual lesions with sufficient detail to monitor suspicious changes all over the body.