

Views and Practice

Tips on taking good clinical photos in daily dermatological practice

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Dermatological conditions are the most visually apparent diseases in the medical field. Clinical photographs are highly important for the documentation of dermatological conditions as well as monitoring the disease progress and treatment outcomes. With the advancement of technology, there are more sophisticated devices used in the field which may be difficult to master. This article aims to review the available photographic systems and some important points in using them.

In general, an intermediate class digital camera like the 'prosumer' grade with adjustable aperture size is adequate in most situations. The drawback of using a handy compact camera is the limited manual adjustment like aperture size and flash intensity.¹ Digital single-lens reflex (DSLR) cameras provide better picture quality together with widely available accessories. However, they are more expensive, heavy and difficult to handle.² Intermediate class camera is a reasonable choice with adequate manual adjustable parameters for clinical use and it is convenient to use.³

Appropriate camera settings are the key to good quality photos. As our subjects are stationary, we can use a higher aperture to sharpen the picture.² Stabilising the camera with a tripod or bracket minimises the risk of getting a blurred picture by involuntary hand movements. The white balance of camera should be set according to the lighting of the room. The consistency of clinical photographs is important especially for the serial monitoring of cutaneous lesions and treatment outcomes. The best way to stay consistent is to keep the environment and lighting constant. The camera should be in manual mode with consistent settings, including aperture size and exposure time in a designated room.

Lighting is a big issue for clinical photography. The area for taking clinical photographs should be a designated private room with plain blue or green background and no external light, as this will affect the exposure.³ The light intensity of most of the built-in flash in the compact cameras cannot be fixed or adjusted, so consistency cannot be guaranteed.¹ International Standard Organisation (ISO) sensitivity should be kept at a reasonably low range (e.g. below 800) to sharpen the picture image if there is adequate exposure. When using the built-in flash, always avoid getting too close to the lesion because the clinical features may be washed off. A slightly oblique view may be helpful to further minimising over-exposure from the flash.²

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Some basics of taking a quality clinical photo may be easily overlooked. A sharp focused picture is obviously essential. All digital cameras come with an auto-focus function, but we have to ensure that the focus is on the lesion and not the surrounding. It is especially true when using the macro mode. To better delineate a cutaneous lesion, multiple views with different distances can be used to demonstrate exactly the sites of the lesion by a zoom-out and the details by a close-up. Immediate recheck on the camera screen helps to confirm that the focus is correct. Macro views are extremely important for delineating the details of clinical features in dermatological conditions.³ Under the macro mode, most of the compact cameras provide 1:1 image while shooting from 2 to 5 cm away from the lesion. Before pressing the shutter, make sure that there is no shadow around the main lesion. A non-reflective ruler with patient's identifier placed next to the lesion for a close-up view helps to demonstrate the lesion size and aids retrieval later.

Stereotactic facial photography devices for dermatologists specialising in facial conditions and procedures are a worthwhile investment. These devices provide standard shooting angles and light intensity which is crucial for serial monitoring. Some of the systems are incorporated with

different light sources (e.g. UV or cross-polarised) and analytical software for image processing to visualise discolouration and vasculature. Three-dimensional photographs generated by some systems enable better demonstration of facial contour and facilitate communication with patients.

With practice, everyone can take a good clinical picture. Besides picture quality, we should never forget to obtain the patient's consent before taking any clinical picture and discuss the aim of taking photography with the patient if the picture is later to be used for publishing or just for record keeping. Just like other electronic health records, all digitalised clinical photos should be backed-up every day and kept in encrypted devices to guarantee patients' privacy.

References

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