Enhancing digital images using unsharp-mask

Address for correspondence: Dr. Feroze Kaliyadan, CC 33/987-a, Vennala PO Kochi, India. E-mail: ferozkal@hotmail.com

Sir,

I read with interest the article 'Enhancing digital images using unsharp-mask' by Taneja.[1] The author has discussed a really interesting aspect of dermatological photography. The use of a sharpening tool is definitely helpful in enhancing communication via images, especially in the context of seeing images on the monitor screens, like in teledermatology, but whether and to what extent the same can be used for manipulation of images for publication purposes raises some ethical concerns. We agree with the author that the 'unsharp-mask' tool available in Adobe Photoshop® (the latest being Adobe Photoshop CS4) is probably the gold standard as far as image sharpening is concerned. The same feature is available with other imaging software like Picture Window. There is also a specific software for image sharpening called 'Sharpener Pro 3.0'. However, this software is not free, and also learning to use the 'unsharp-mask' tool might be a bit difficult for people not familiar with Photoshop. For people new to the concept of image sharpening, a simpler tool is available in Picassa 3.0 (which can be downloaded free), where you can simply go to the 'effects' tool bar and sharpen the image. The extent of sharpening can be controlled by the horizontal scroll bar.

Care should be taken not to over-sharpen the images as over-sharpening can lead to:

1. Edges becoming unnaturally pronounced — dark objects may get outlined with light halos and light objects with dark halos.
2. Normally invisible noise in the image is amplified and starts to show up as a texture in areas that look smooth in the original images. This can create an undesirable graininess in parts of the photograph.
3. Extreme sharpening causes the image to break up as each individual pixel stands out much more from its neighbors.[2]

Feroze Kaliyadan

Department of Dermatology, Amrita Institute of Medical Sciences, Kochi, Kerala - 682 028, India

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