

Forum Implantologicum



ENGLISH

Implant Dentistry Education
ITI World Symposium 2017 Highlights
Young ITI in the UK & Ireland

Photo Tips:

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Show Yourself in the Best Light



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Keywords:

Photography, light, equipment, standards

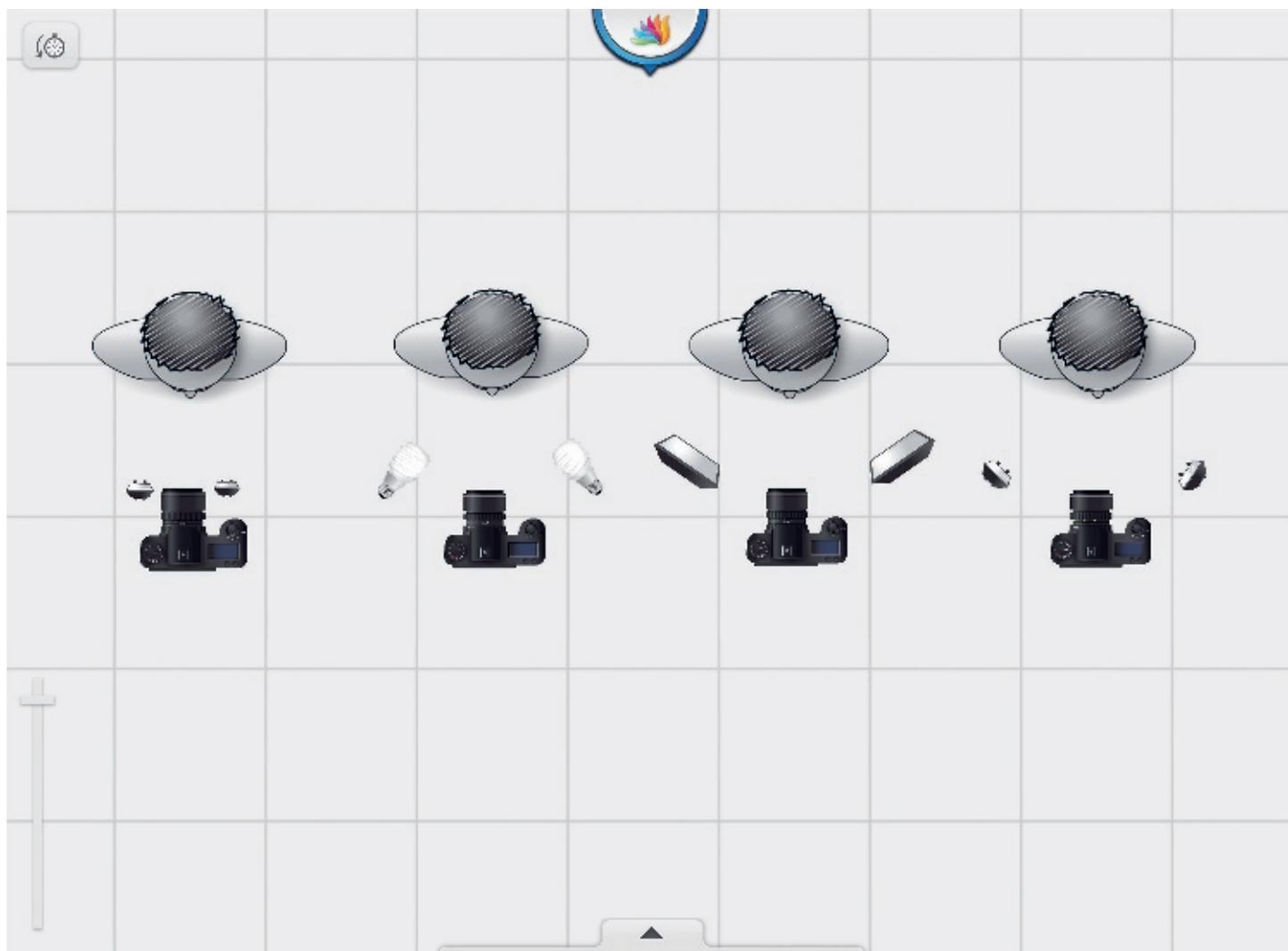


Fig. 1

INTRODUCTION

In our last article “Light in Dental Photography” we discussed the different light sources and their impact on dental photography (Devigus et al. 2017). Lighting is a key factor in creating a successful image. It determines not only brightness and darkness, but also tone, mood and atmosphere. It is therefore necessary to control and manipulate light correctly in order to get the best texture, vibrancy of color and luminosity on your subjects. The targeted distribution of shadow and highlights will allow you to create better photographs. We all want to “show ourselves in the best light”. This saying especially applies to dental photography, where modifying

lighting can change the result dramatically. Over the last few years technology has evolved, and new light sources have also been introduced to dental photography. The impact of different light set-ups on the final image can be dramatic.

Light has three main properties that are of particular interest to a photographer:

1. The quantity or intensity of light. The amount of light available will determine the exposure and vibe of the photo
2. The quality or type of light that will produce a definite level of contrast and depth
3. The direction from which the light hits your subject determines the overall appearance

It is important to note that these properties are present in both natural and artificial light.

A clinical example is used below to explain possible variations and modifications, their outcome as well as their pros and cons.

The following set-ups have been used (Fig. 1 from left to right):

1. Direct lateral flash positioned close to the lens (“ring flash”)
2. Continuous LED light from left and right with an angle of 45 degrees
3. Indirect flash using light modifiers (bouncer, soft box)
4. Direct lateral flash at an angle of 45 degrees

1. Nikon SB-R 200 Macro Flashes mounted on an Owl bracket positioned close to the lens (“ring flash effect”) ISO 100, 1/160s, f/22, flash ¼ power



Pros:

- Easy set-up and control
- Universal light for anterior and posterior regions

Cons:

- Harsh light creates more reflections
- Less detail on teeth and gingiva

2. Amaran AL-M9 LED lights mounted on an Owl bracket at an angle of 45 degrees, ISO 2500, 1/125s, f/18



Pros:

- Constant light makes frame selection easier
- Great for shooting short videos

Cons:

- Difficult set-up
- Higher ISO settings and smaller aperture needed thus reducing overall image quality
- Flatter light

3. Indirect flash using light modifiers (Lumiquest bouncers) ISO 100, 1/160s, f/22, flash ½ power



Pros:

- Popular lighting set-up initially used by lab technicians to eliminate reflections
- Creates a “soft look” and eliminates “imperfections”

Cons:

- Does not reproduce what we see
- Creates a “soft look” and eliminates “imperfections”

4. Nikon SB-R 200 Macro Flashes mounted on an Axis flash holder at a fixed 45-degree angle, ISO 100, 1/160s, f/22, flash ¼ power



Pros:

- From scientific point of view, ideal lighting set-up with a 45-degree angle of illumination
- Very good reproduction of details on hard and soft tissue
- Consistent images because of the fixed positioning of the flash
- Natural look

Cons:

- Works only in the anterior region, not suitable for posterior images

All images were taken with a Nikon D810 in DX mode, 105 mm 2.8 VR macro lens and an average distance of 45 cm to the subject to achieve uniform illumination. For better comparison of the results, a white balance gray reference card (e-LAB, www.ealboraid.de) was used to calibrate the images.

CONCLUSIONS

Managing light helps you to get the most out of your clinical images. Different types of light can show the subject in a variety of different ways and also change their color. To avoid misleading information, don't make any changes to the light settings during clinical documentation. You might take additional images using different light set-ups to focus on details. If you want to use various light set-ups, you need to calibrate the various settings using a neutral gray card. This information should also be included in publications and presentations.

REFERENCES

Devigus A., Bazos P. & Hein S. (2017) Light in Dental Photography. *Forum Implantologicum* 13: 64–71.