

Role of 3D Image Magnifier Screen in Plastic Surgery Practice

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Sir,

The importance of medical photography was recognized early on by one of the pioneers of plastic surgery, Sir Harold Gillies claimed photography was one of the most important advances in plastic surgery [1].

Clinical photography is a permanent visual record and an essential tool in certain specialties like plastic surgery and dermatosurgery. Images are valuable for documentation, planning, providing visual references, assessment of outcomes, communication with the patient and relatives, sharing data and experience [2].

In a clinical armamentarium photography may be considered as an essential tool. Because of their increased utility various standards have been made for improvement of medical photography [3,4].

Photography is also emerging as an important part of telemedicine. It saves patient's time, travel charges and patient's discomfort of travelling with wound. Especially sick and home bound patients can get timely consultation without waiting for actual presentation to the consultant [5].

A good quality photograph taken by consultant can be shown to patients and relatives to discuss about wound/ deformity/ dermatological conditions and treatment planning. Pre operative and post operative comparison of outcomes can be done better with good quality photograph.

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Smart phone cameras are used by many people as an adjunct to digital camera as image quality, zooming capability, pixels and screen size is improved in newer versions of smart phones. In conventional available smart phones a 5 to 7 inches screen size is available but it may not be possible for discussing the dermatological conditions with patient/ attendants due to small screen size. Further it has no 3D effect (depth perception) of the dermatological condition. If a smart phone with large screen or tablet/ laptop is used, it adds to the cost. So an Image Magnifier with 3D effect is required for magnifying the image of the smart phone. Recently available 3D image magnifier for smart phone costs less than INR 450 which magnifies the image up to three times. The weight of the device is 100 grams (Figure 1, 2, 3). It is an effective tool for discussion and planning with patient, relatives and peers (Figure 4a, 4b). It has inbuilt speaker so not only images but videos also can be magnified with better understanding of the procedure while teaching and explaining the procedure to the patient, relatives and peers (Figure 5). Through this article we would like to highlight the use of 3D image magnifier as a small, portable and low cost tool in plastic and dermatosurgery clinical practice.

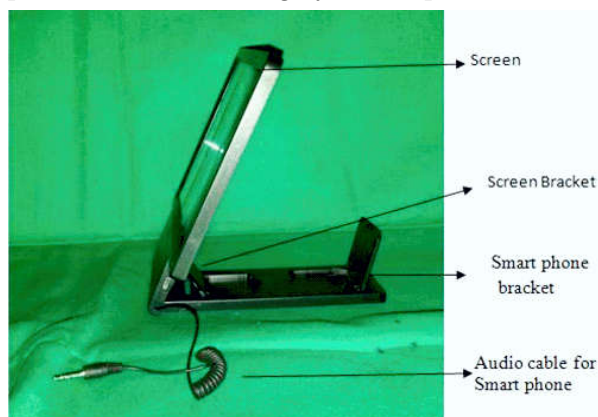


Fig. 1: 3D Image magnifier

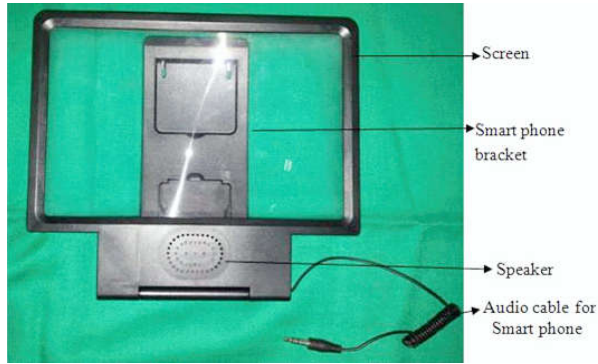


Fig. 2: 3D Image magnifier with open bracket for smart phone



Fig. 3: Smart phone in the bracket

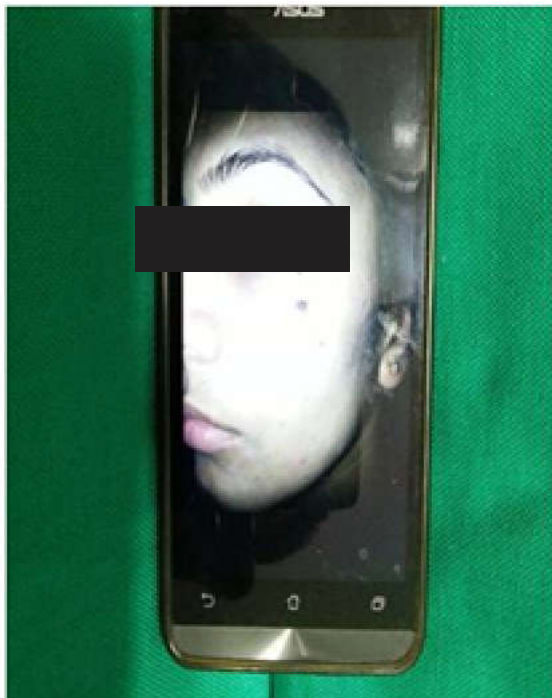


Fig. 4a: Original image with nevus seen in smart phone screen



Fig. 4b: Magnified image with nevus seen in magnifier screen



Fig. 5: Magnified Video of cleft lip marking being shown to students through image magnifier for teaching purpose.

Conclusion

Image magnifier may be considered as a small, portable and low cost tool in clinical practice with several advantages like discussion, planning, monitoring, teaching, teleconsultations etc.

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