



Brief Report

# A Smart Tool for Early Patients' Self-Assessment of a Scrotal Enlargement: The Smartphone Light

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Asymptomatic scrotal enlargement can occur in pediatric and adult patients [1,2]. A key immediate evaluation should provide early differentiation of a malignant from a benign mass, the most frequent condition in this group being hydrocele [3], a painless swelling of the scrotum due to an abnormal collection of fluid in the tunica vaginalis that surrounds the testicle [4]. A scrotal enlargement can initially be associated with significant

anxiety for the patient, unable to differentiate a benign from a malignant mass. The diagnosis is clinical, after a medical consultation and examination from a physician and an ultrasound. Transillumination of the scrotum, usually performed by physicians in the office, is also a good and straight-forward method to differentiate a hydrocele from a solid testicular mass, a scrotal hernia or post-traumatic hematocele [5,6]. At present though, with the wide-spread availability of smart phones equipped with powerful lights, patients could use these tools as a smart and easy way to transilluminate the scrotum while they are home (Figure 1).



Figure 1

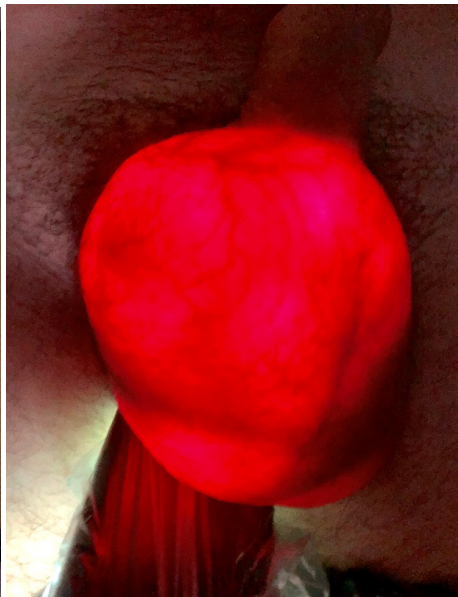


Figure 2

The flat surface of a common smartphone and the position of the light, allows the patient to easily transilluminate the scrotum, holding the phone with the light on, covered by a transparent plastic sheet or synthetic glove, over the mass. In case of hydrocele, the transillumination of the scrotum in a dark room shows clearly a “soft red balloon” (Figure 2); on the other hand, a solid mass will not transmit the phone light; the patient should then seek immediate medical attention, to make sure to diagnose promptly a testicular cancer or other clinically urgent conditions, without delay.

Our Urological Clinic, part of the European Network ERN eUROGEN [7], is involved with evaluation of patients with scrotal masses and testicular cancers. The simple assessment of transillumination with a smart phone light is, in our opinion, an excellent first evaluation tool, that can be proposed especially to young and young adult patients, dealing for the first time with an enlargement of their scrotum. In case of clear transillumination, they can be reassured but, in case of negative transillumination, this should be considered like a powerful “red-flag”, soliciting them to seek immediate urological evaluation.

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