A simple and safe method for creating closed pneumoperitoneum in slim patients with firm abdominal skin

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BACKGROUND

Despite a well recognised risk of complications, use of a Veress needle remains the most popular technique for creating closed pneumoperitoneum.^{1,2} The umbilical approach is particularly prone to inadvertent injury to the underlying viscera, especially in thin individuals.^{1,3} Abdominal wall elevation is therefore desirable prior to inserting a Veress needle 'blindly'.⁴ Furthermore, it can be difficult to lift the abdominal wall in slim patients with taut skin posing a risk of 'overshoot' and injury to intra-abdominal organs (Fig 1A). We describe an easy-to-use lateral dermal lift technique (LDLT) for creating pneumoperitoneum safely in such patients.

TECHNIQUE

The right-handed surgeon stands to the left of the patient. (Left-handed surgeons would stand to the right.) The skin overlying the lateral margin of the right rectus muscle is pinched and lifted upwards as high as possible. The Veress needle is advanced tangentially starting from the peri-umbilical stab-incision towards this skin fold to puncture the peritoneum, guided by the double-click sound on passing through the abdominal wall layers (Figs 1B–D).

DISCUSSION

The umbilicus is the thinnest region of the abdominal wall.⁵ However, the LDLT engages the Veress needle in such a way that it safeguards the intra-abdominal structures. This method has the potential to avoid repeated attempts to introduce the needle at the desired position, which can be frustrating and prolong the operating time. We have used this technique successfully in over 2,300 patients without any complications and recommend it strongly.

Figure 1 A: Poor midline dermal grasp in slim patients with firm skin. There can be hardly any elevation of the skin fold. B–D: Lateral dermal lift technique: Note the ease with which the skin may be lifted and also the precise tangential puncture angle of the Veress needle, which further adds to the safety of this technique.

References

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