

SURGICAL TECHNIQUE

SIMPLE TECHNIQUE FOR IDENTIFYING THE LINEA ALBA IN LOWER ABDOMINAL INCISIONS

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Background: Identification of the true midline in infra-umbilical longitudinal incisions is often difficult. Traditional methods of identification can be unreliable.

Methods: An alternative technique for identifying the linea alba, based on the attachments of the median umbilical ligament, is presented.

Results: The technique is both reliable and reproducible in identifying the midline.

Conclusion: This technique is recommended as a means of avoiding muscle incision and facilitating wound closure.

Key words: laparotomy, pelvic surgery.

INTRODUCTION

Identification of the linea alba below the umbilicus can be a frustrating and time-consuming exercise. Traction on the skin edge by sterile drapes may distort the surface anatomy, a common approach for determining the midline. We describe a simple and reproducible method of identifying the midline.

TECHNIQUE

A skin incision is made in the usual fashion below the umbilicus. Dissection is carried down to the level of the rectus sheath. Mobilization of fat to improve exposure of the sheath is helpful in obese patients. The operating surgeon then places his index finger in the apex of the incision and retracts it directly cephalad (Fig. 1). This raises a ridge of rectus sheath that is palpated with the opposite hand, and corresponds with the linea alba. The incision is then carried along the line of this ridge to separate the recti and expose transversalis fascia.

DISCUSSION

This technique relies on the attachments of the median umbilical ligament. Incision and subsequent closure of sheath, rather than muscle, is advantageous in terms of postoperative pain, mobility and analgesic requirements, as well as tensile strength of the closure. Traditional methods of locating the midline, such as surface anatomy or recognizing the decussating fibres of the anterior sheath,¹ can be unreliable. We recommend this technique as a means of identifying the linea alba to prevent muscle incision and facilitate wound closure.

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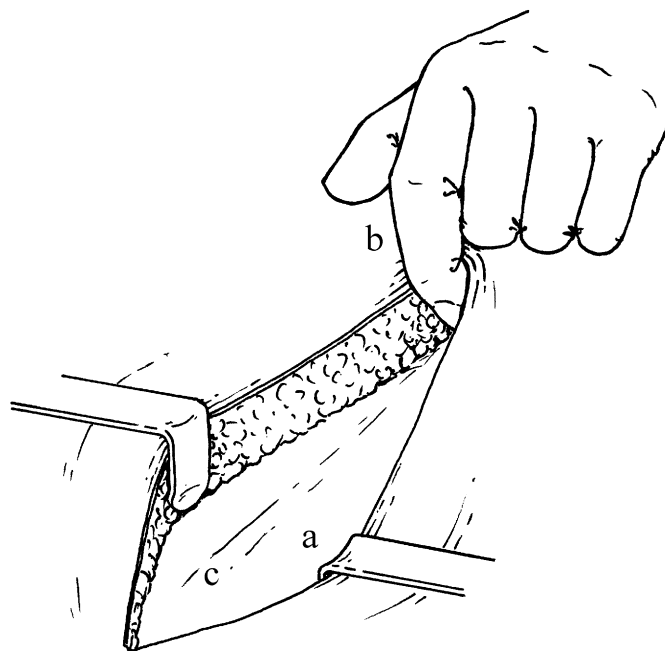


Fig. 1. Finding the midline. (a) Exposure of the infra-umbilical rectus sheath with (b) traction directed cranially at the apex of the incision. (c) A palpable ridge of rectus sheath is raised by the manoeuvre, and corresponds to the underlying linea alba.

REFERENCE

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