

A Novel Surgical Modification for Caesarean Section in Class III Obesity

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OBJECTIVE

The prevalence of obesity in obstetrics is reaching pandemic proportions⁽¹⁾. Obese women have a higher rate of Caesarean section birth which poses numerous challenges, including difficulty with access to the surgical field and increased postnatal complications, especially wound infection⁽²⁾. We have evolved an alternative surgical approach to the traditional Pfannenstiel and Joel Cohen entries which improves access and reduces wound infections in women with Class III obesity.

METHOD

Based on our experience with open myomectomies for large fibroids, we devised a novel technique for caesarean sections by using a high transverse abdominal incision 2cm below the umbilicus, where thickness of the subcutaneous tissue is minimal (figure 1). The subcutaneous tissue is shaved in a caudal direction to a point 2cm above the pubic symphysis, at which point gravity renders the pannus to self-retract (figure 2). A transverse incision is made in the rectus sheath and the abdominal cavity entered as usual. Surgical and postnatal outcomes were audited.

FIGURE 1

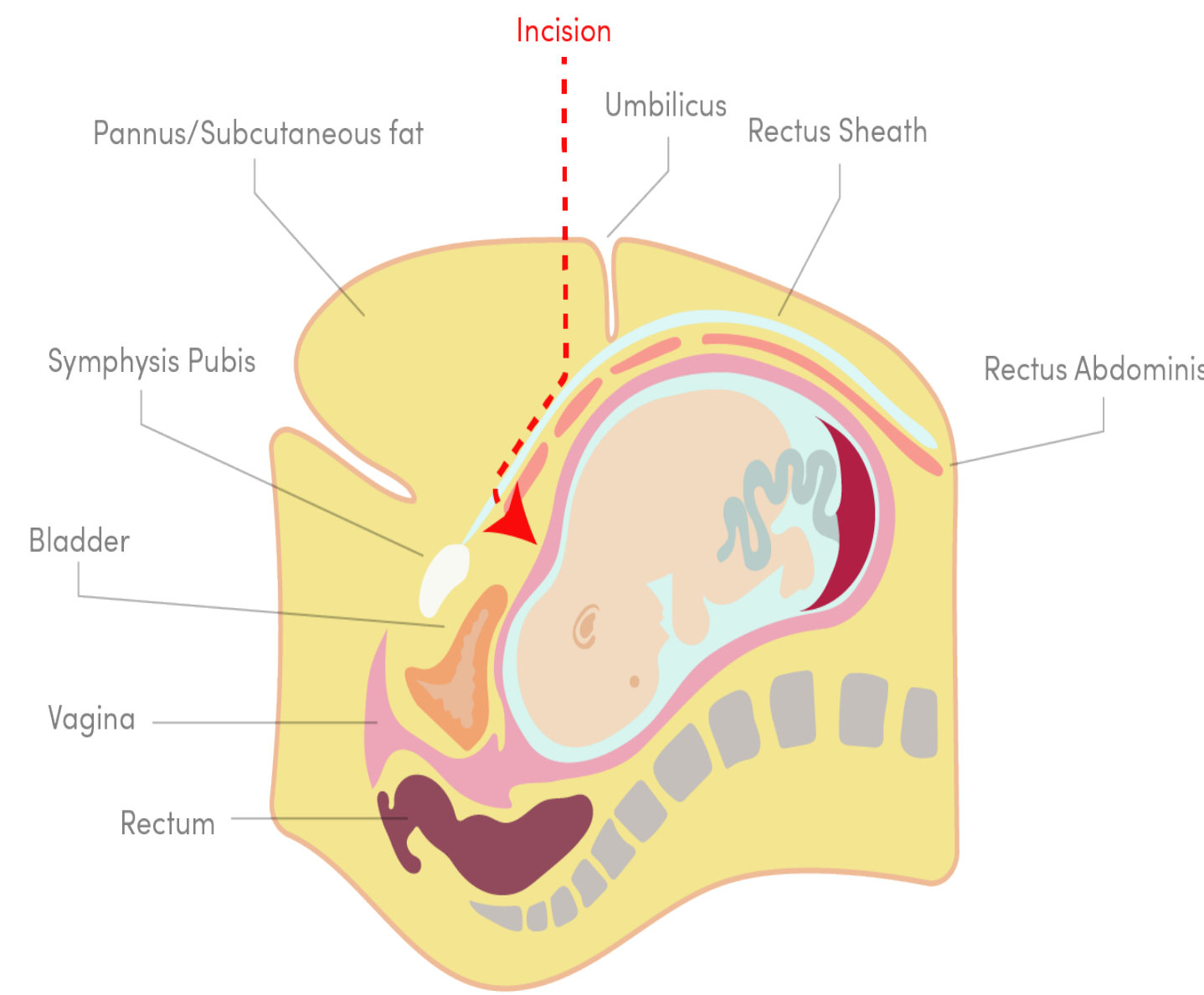


FIGURE 2

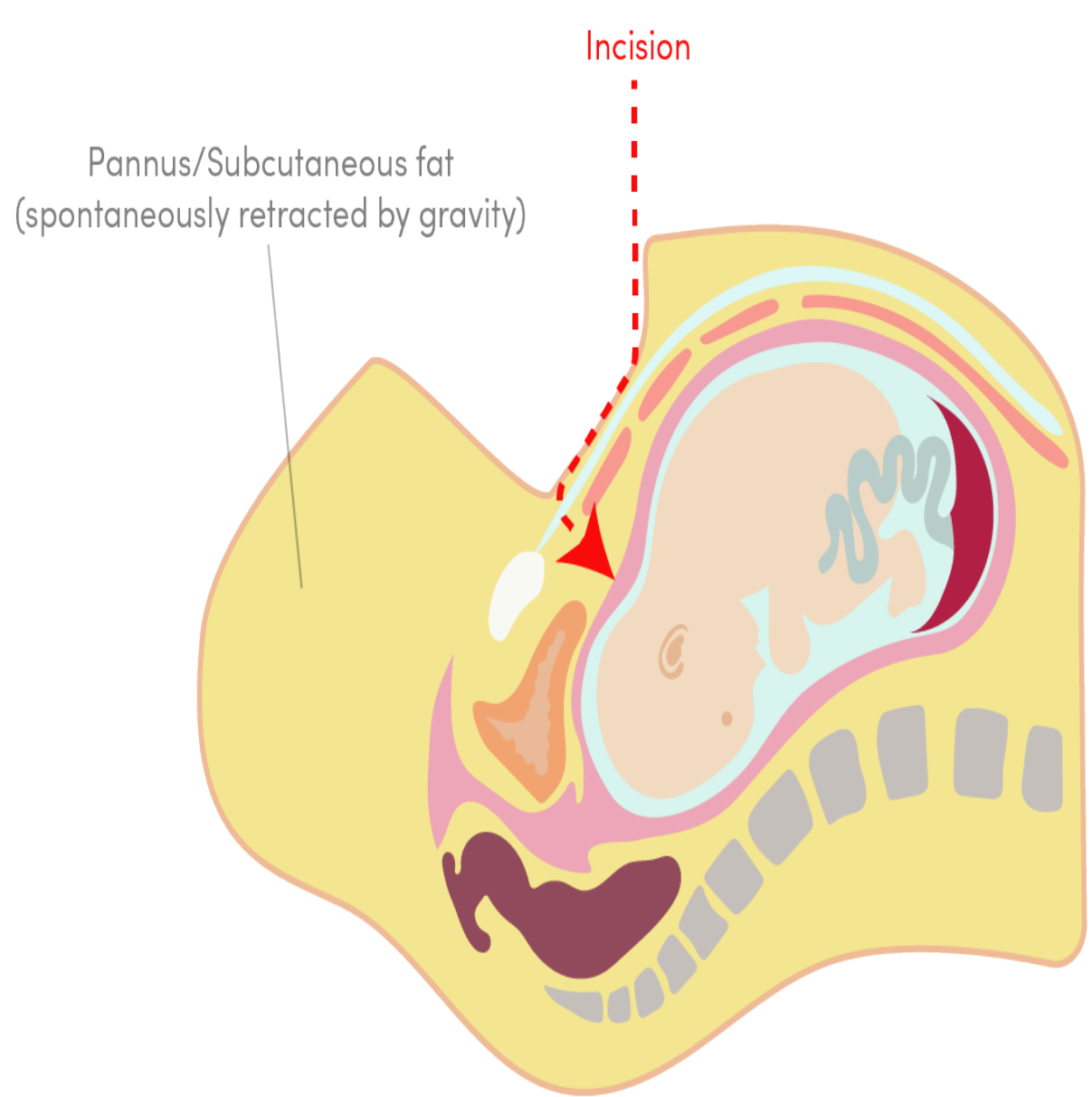


FIGURE 3



An image taken immediately post operatively of a woman who had undergone a planned caesarean section using the novel technique described.

All patients had 2 drains inserted intra operatively; a Robinson's intraperitoneal drain for identification of bleeding (depicted on left of image) due to the difficulty in clinically assessing for this within this group of women and a Redivac drain above the rectus sheath to prevent any subcutaneous collection formation (depicted on right of image).

Provided no issues, the Robinson's drain is removed after 24 hours and the Redivac after 72 hours.

The vertical stitches across the incision are tension stitches keeping the wound opposed. The tubing is to prevent the stitches from digging into and adhering to the skin.



An image of the same patient taken day 7 post operatively.

All patients are covered with 3 doses of IV antibiotics and have a PICO negative pressure wound dressing applied for 14 days. The tension stitches are removed on day 7 when the dressing is also changed.

RESULTS

- Over 12 months, 23 women with a booking Body Mass Index over 50 delivered in our Unit.
- 15 of these women had a caesarean section, 10 women via the conventional method and 5 via the novel approach.
- The complication rate (defined as return to theatre, postnatal readmission or prolonged postnatal admission over 72 hours due to infective causes) was 40% among women in the conventional group, and 0% in the novel group.
- Hospital stay was shorter in the novel group (average 4.6 days versus 8.6 days).
- Two of the women from the traditional group required multiple returns to theatre for washout and debridement, their total postnatal inpatient period lasted 40 and 12 days respectively.

CONCLUSIONS

Although the numbers reported are small, the dramatic difference in complications, especially infection rates, is impressive. Those who've used the technique attest to the ease of access during the delivery. These findings warrant that a randomized multi-centre trial be undertaken, until which we will continue to use this modified approach as the outcomes are so encouraging.

REFERENCES

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