

FASCIA LATA AS A SOURCE OF RECONSTRUCTION IN THE LAPAROSCOPIC REPAIR OF UMBILICAL HERNIAS

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ABSTRACT: AIMS AND OBJECTIVES: The aim of this study was to evaluate the versatility of tensor fascia lata flap for laparoscopic reconstruction of umbilical hernias.

MATERIALS AND METHODS: In this study a total of 24 patients with defects over umbilical region were included. Reconstruction was performed using patients' fascia lata. Patients were evaluated in terms of viability of the tissue and donor site morbidity, followed up for a period of 3 years.

RESULTS: All the defects got effectively and adequately repaired using the autologous fascia lata. All the patients were followed up for an average period of 3 years. Donor site morbidity was minimal.

CONCLUSION: It was concluded that the autologous fascia lata is a versatile, reliable, easy, and less time consuming procedure for the coverage of umbilical wall hernias via laparoscopy.

KEYWORDS: Umbilical Hania, Tenson fuscia Lata, Laproscopic repair.

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INTRODUCTION: The fascia lata is the deep fascia of the thigh. It encloses the thigh muscles and forms the outer limit of the fascial compartments of thigh, which are internally separated by intermuscular septa. The fascia lata is thickened at its lateral side where it forms the iliotibial tract, a structure that runs to the tibia and serves as a site of muscle attachment.^[1]

Since the 1920s fascia latas from deceased donors have been used in reconstructive surgery. In 1999 preserved mashed fascia latas became FDA-approved as a tissue product designed to replace areas of lost fascia or collagen.^[2]

Fascia lata has been used for reconstructive purposes in many conditions particularly in ophthalmologic surgeries. TFL has been widely used for the correction of lid and orbital deformities and glaucoma surgeries. In addition they have also been applied as a dural substitute in neurosurgery and for penile reconstruction. However its use in the reconstruction of ventral hernias and complex abdominal defects that TFL has been found to be useful of late.^[3,4,5]

In this series we present our experience with the use of fascia lata flap for the reconstruction of umbilical hernias via laparoscopy.

MATERIALS AND METHODS: In this study a total of 24 patients with defects over umbilical region were included. Reconstruction was performed using fascia lata harvested from the thigh which was then used to cover the umbilical defect via laparoscopy, secured with sutures. Patients were evaluated in terms of viability of the tissue and donor site morbidity.

RESULTS: A total of 24 patients were selected to undergo the repair. The time period was 4 years. Of these, the average age of patients was 35. All the patients were followed up for an average period of 3 years. Donor site morbidity was minimal. No newly developed functional deficit of the lower limb was noted in any patient. Neither recurrence of herniation nor mortality was recorded during the period of follow-up.

Of all the 24 patients, only one patient with morbid obesity, having hypothyroidism showed a tendency to develop recurrence due to improper take of the graft because of the comorbidities involved. All the remaining 23 patients had excellent results due to completeness of graft uptake.

DISCUSSION: In comparison with prosthetic mesh repairs, autologous vascularized tissues have the advantage of not implanting foreign material into the body thus reducing the risk of infection when applied to a contaminated field. Furthermore, they can be combined with other methods, such as components separation of mesh, to reduce the size of the flap needed. The disadvantages include the complex techniques required as well as the morbidity associated with the donor site.

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The tensor fascia latae (TFL) myocutaneous free flap was first described by Hill and co-workers in 1978 and since then, its use has been reported in more than 100 patients. There was no perioperative mortality, or intra-abdominal or deep surgical site infections.

In our study, we made an attempt to laparoscopically repair umbilical hernia defects using autologous fascia lata which has never been tried before anywhere: We got promising results with the fascia lata which throws light into a new modality to repair ventral hernias.

The advantages of harvesting fascia lata compared to other autologous tissues is the easy availability, lesser cost, lesser donor site morbidity and anatomical resemblance. In addition, the size of the tissue can be quite large although in very wide ones the relative thinness of the anteromedial portion of the fascia, especially in women, sometimes requires mesh enforcement. Furthermore, the location of the donor site in the thigh has no effect on postoperative respiratory function, and usually heals well.

However, the fascia lata reconstruction requires extensive experience and close collaboration with abdominal and plastic surgeons, and probably should only be used in specialized centers with sufficient institutional and surgeon-specific volume of patients.

CONCLUSION: It was concluded that the fascia lata is a versatile, reliable, easy, and less time consuming procedure for the coverage of umbilical hernia defects via laparoscopy. The results suggest that this is a useful technique that can easily be applied in many centers with minimal resources. It is cheap, effective and associated with minimal morbidity.

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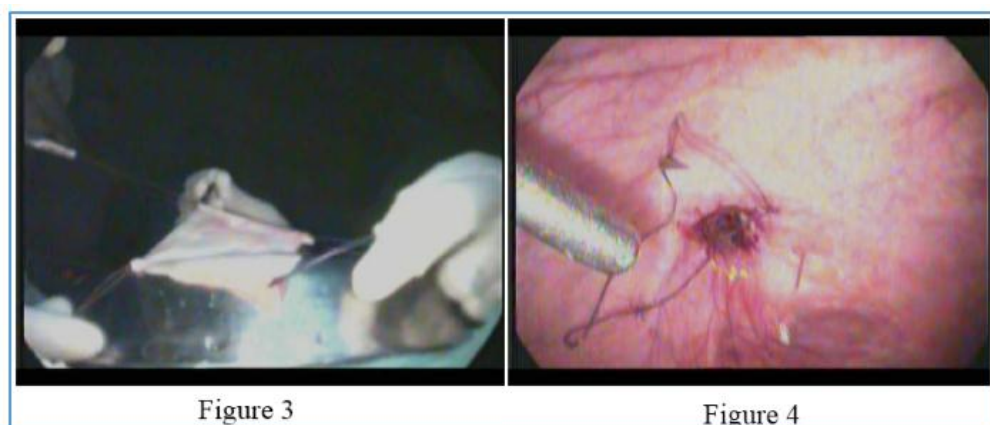
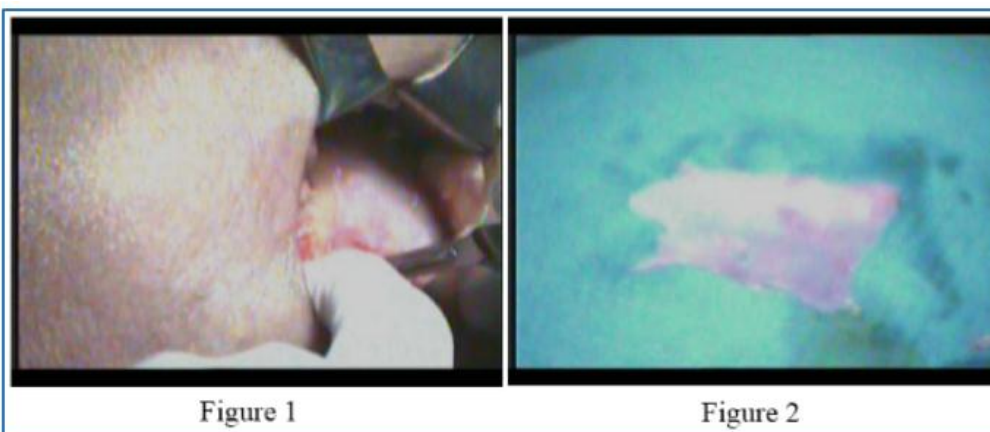




Figure 5