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INTRODUCTION

Donor safety is the first priority and the main issue in Living Donor Liver Transplantation (LDLT). The Donor takes his or her own risks of operation for the benefit of a diseased person. Therefore, it is important to ensure the donor has to suffered minimal pain, less or few complications and good cosmesis.

Donor hepatectomy is done via various access with a long and big skin incisions, such as – midline incision, reverse “L” incision, Mercedes incision and on the other hand via a minimally invasive small incision – upper midline or transverse incision depending on surgeon’s preference and donor’s body built. Nowadays, laparoscopic donor hepatectomy becomes standard approach in established centers worldwide. However, it needs special setting, skill and facilities which are not yet available in Myanmar.

The aim of this case report is to highlight the benefits of transverse skin incision for donor hepatectomy which is preferable to previous routine open donor hepatectomy incisions and even comparable with *Pfannenstiel* organ retrieval skin incision used in laparoscopic donor hepatectomy.

METHOD

Living Donor Liver Transplant program has been set up with the help of Seoul National University Hospital (SNUH) as a Korea–Myanmar Collaboration between Yangon Specialty Hospital (YSH), Ministry of Health and Sport and SNUH since October 2016. The first LDLT was performed on 6 October, 2016 and successively another two pairs of LDLTs on 20 and 21 December, 2016.

The donor was a 25-year old thin gentleman with low fat whose body weight was 56kg and height of 170cm. First, the surgeon made a transverse skin incision just above the umbilicus measuring 13 cm (5 inches). Then, the tissue plane beneath the fascia (rectus sheath) was dissected along the incision. After that split the rectus abdominis muscle at midline and cut some fibres of anterior abdomen wall muscle but mostly by splitting. Finally, Thompson retractor was applied for good exposure and adequate access. It took 3 ½ hour for donor hepatectomy (extended right graft). Finally, the abdomen was closed back layer by layer in usual fashion where subcutaneous tissue was sutured with 4-0 prolene, and then, skin edges were opposed using stirr strips.

Figures : Method: intraoperative steps photos

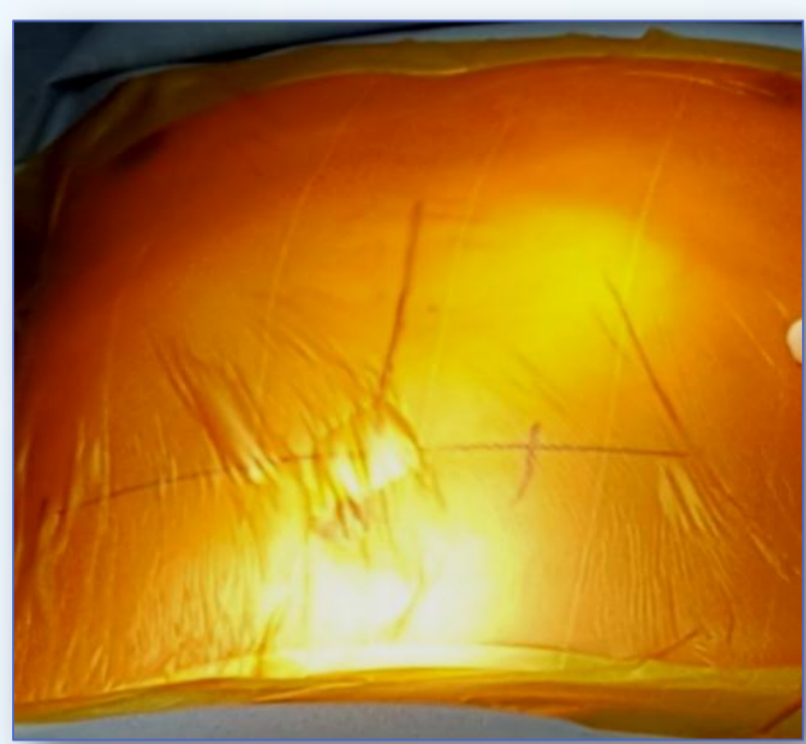


Figure (a) and Figure (b) Marking and measuring of skin incision

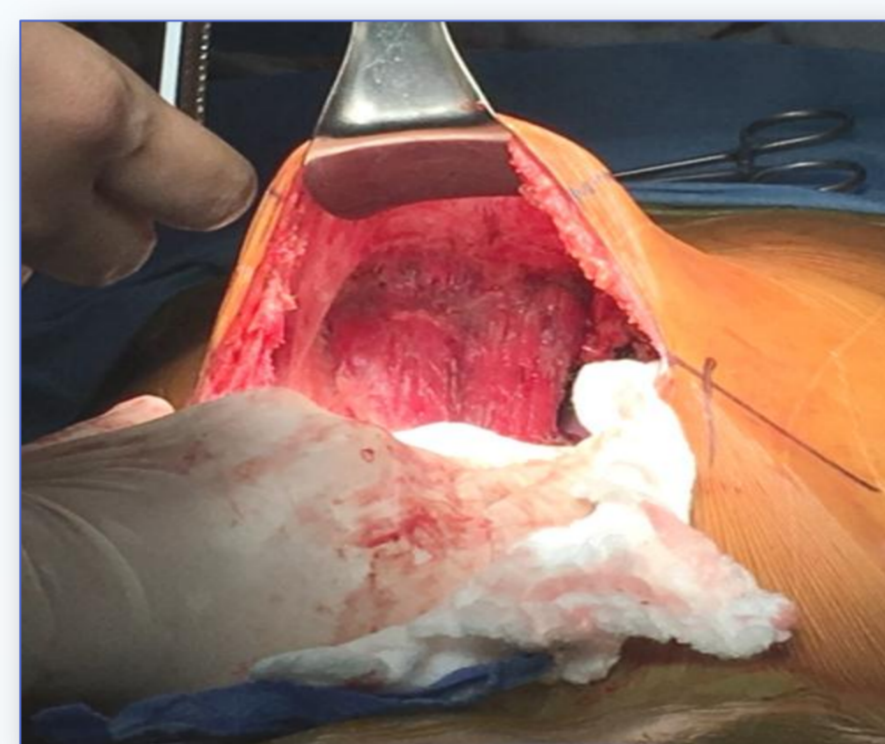


Figure (c) The skin flaps creation

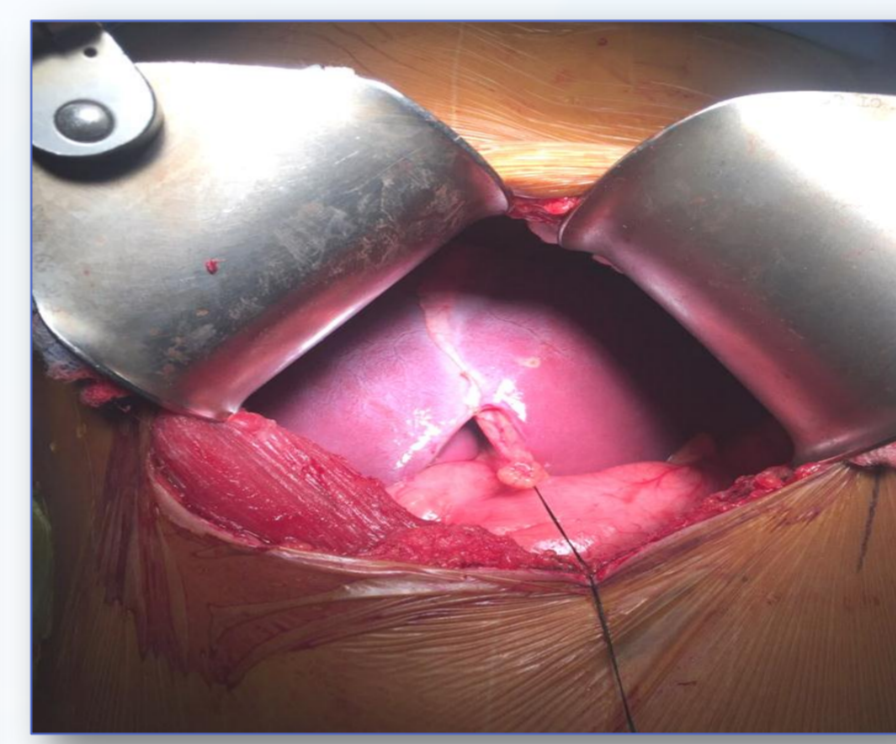


Figure (d) Exposure of liver by applying Thompson retractor

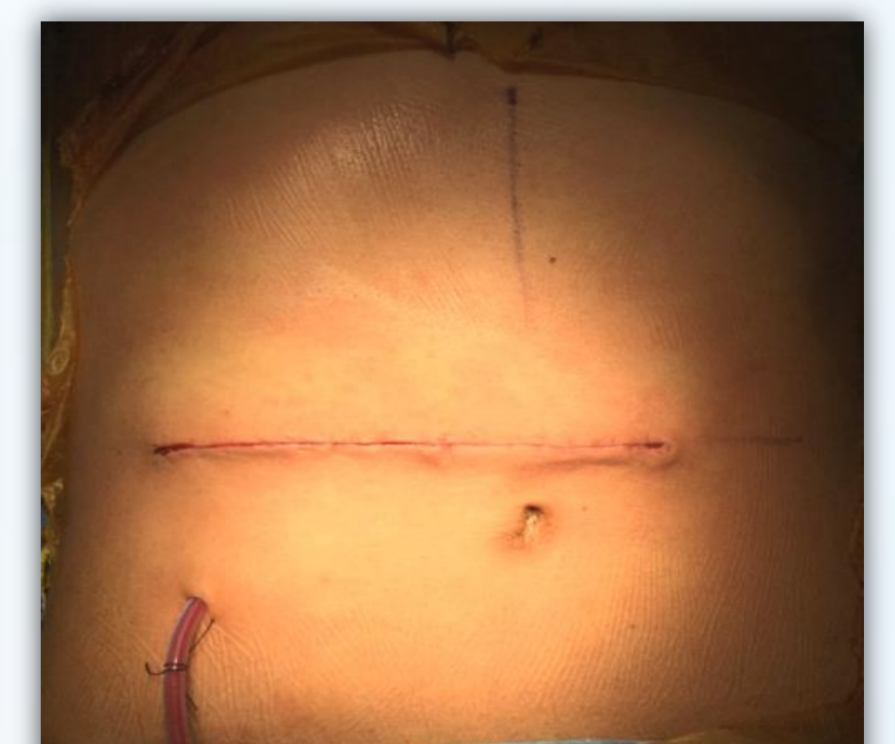


Figure (e) Sutured incision just before applying dressing

RESULTS

During post-operative period, donor complained of minimal pain resulting in early mobilization, little anxiety and no wound complication till post-operative day 7. But, unfortunately, some seroma collection was found on POD 7 so that aspiration under ultrasound guidance obtaining about 20 cc of serous fluid. After that incidence, there was no further problem of wound and the patient was discharged on post-operative day 8.

DISCUSSION

Approach via transverse skin incision did not take longer time for donor hepatectomy and it could provide an adequate access. Although it was complicated with small amount of seroma collection, ultimately the result was cosmetically acceptable i.e., small incision along skin crease. The end result was patient satisfaction and early return to work. It could be a better point of view for potential donors be definite donors and to alleviate the donor anxiety for post-operative pain, and not the least the cosmesis.

CONCLUSION

In conclusion, if donor body built allows, a transverse incision donor hepatectomy should be the choice of access which has less complication, cosmetically sound and gives patient satisfaction compared with other long and big incision. When comparing among minimally invasive small incisions, this transverse skin crease incision is more cosmetic and caused less pain.

However, more studies will be needed to compare pros and cons between these minimally invasive incisions including laparoscopic donor hepatectomy to know the better option for donor hepatectomy.



Figure (f)
The incision was covered with stirr strips



Figure (g)
Seroma collection found at post-op day 7 (dotted area)



Figure (h)
Aspirated seroma fluid



Figure (i)
Condition of scar on 86 post-op day

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Ethical statement: Patients consent received in written to present this paper in conference including photographs.

Conflict of interest: There was no conflict of interest.