

Repair of Ventral Hernia by a Simplified Procedure

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Several procedures are known for the repair of ventral hernia, each claiming its advantages. The basic principle underlying the procedures remains the effective repair of the fascial sheath by various techniques, use of different sutures and or the use of darn or implant materials.

The authors present a report on 50 cases of a modified repair procedure based on principle of 'Keels' procedure as reported by Maingot (1961). In the series 30 were male and 20 female. 50 Percent cases were between 30-50 years of age.

There were 16 cases with size of hernia upto 2 cm. In 18 cases the defect measured upto 4 cm., 8 cases upto 10 cm. and other 8 cases who had maximum defect upto 20 cm.

The main steps of the procedure are :-

- 1) Elliptical incision encircling the hernia and dissection of the sac and the sheath.
- 2) The sac is opened to cause lysis of any adhesions and excess of sac is excised.
- 3) The sac is closed by interrupted no. 30 cotton suture.
- 4) The anterior rectus sheath which has been displayed to a desired extent, by sharp and blunt dissection is inverted by interrupted No. 30 cotton. In the case of an

epigastric and umbilical hernia, a one layer suture of rectus sheath is considered adequate. In case of paraumbilical hernia after the rectus sheath has been apposed and not overlapped as in Mayo's repair, a second layer of inverting stitches is inserted.

In the case of ventral or incisional hernia after the closure of the peritoneum, in 80 percent cases a double layer of interrupted inverting suture was sufficient, whereas in the rest a third or fourth layer was added.

5) Excess of skin is excised towards the end of operation, so that when the skin is approximated it is under slight tension, the subcutaneous layer having been approximated by 3-0 plain catgut to obliterate any dead space. No drainage is employed.

Table I
Showing the types of hernia

Type of Hernia	No. of cases
Umbilical	3
Paraumbilical	20
Epigastric	10
Ventral	8
Post-incisional	8
Post-traumatic	1
Total	50

Thirty three cases or 66 percent cases Table III left hospital by the tenth day, these generally being cases of umbilical, epigastric.

Table II
Showing post operative complication

Post-operative ileus	4 cases (8 Percent)
Seroma	Nil
Haematoma	Nil
Slight gaping of wound and serum discharge.	4 cases (8 Percent)
Post-operative retention of urine.	4 cases (8 Percent)

Table III
Showing post-operative hospital stay

7 days	13 cases
7-10 days	20 cases
10-15 days	14 cases
15-20 days	3 cases

or para-umbilical hernia but cases with large hernia left by the 15th day. Patients with longest stay (upto 20th day) were those with superficial gaping and serum discharge, which was expressed at the time of daily dressing.

Follow up

All the cases reported for follow up, after one month and showed no recurrence or any significant complication.

Discussion

The authors consider the above repair procedure, a very simple one, based on effective repair of fascial sheath by the simplest of suture material. The disadvantage of 'Keels' procedure is over come with opening

of the sac and division of any adhesions. It lacks the disadvantage of multiple cutting and suture technique of Cattell (1965). The fascial sheath is displayed just enough with sharp and blunt swab on handle dissection thus avoiding formation of haematoma. The wide wound debridement towards the termination of operation is considered instrumental towards virtual elimination of post-operative wound infection, as also the lack of employment of any drainage tubes which might allow entry of organisms from the exterior.

The post-operative hospital stay and complications are minimal and immediate results are highly satisfactory.

Summary and Conclusions

- 1) Fifty cases of ventral hernia, treated by simplified interrupted inverting suture method using cotton suture material, are reported.
- 2) Opening the hernia sac for adhesions, limited dissection of sheath, wide wound debridement and no provision of any drainage form main features of the procedure,
- 3) Haematoma, seroma and wound infection are eliminated, though serum discharge through superficial wound gaping occurred in 8 percent cases of big hernia. Post-operative stay is minimal and no recurrence occurred on follow up.

REFERENCES

1. Cattell, R.B. Quoted by Bailey & Love : A short practice of Surgery., 13th edition. London, H.K. Lewis and co. Ltd., 1965, P.1096
2. Maingot, R. Quoted by Rodney Smith : Progress in clinical Surgery, London, J & A