

The umbilicus in laparoscopic surgery

Dr.R.K.Mishra



Is Umbilicus safe?

- The central location and ability of the umbilicus to camouflage scars make it an attractive trocar site for laparoscopic surgery.
- Umbilicus is a naturally weak area due to absence of all the layers.
- Weakness is also due its location at the midpoint of the abdomen's greatest diameter
- Most Surgeon believe there is a difference between the umbilicus and other trocar sites in both susceptibility to infection and postoperative incisional herniation.



Aims of Study

- To determine whether the umbilicus is at greater risk for postoperative infection than other trocar wounds.
- To determine whether the umbilicus is at greater risk for incisional herniation than other trocar wounds.
- Is pre-existing umbilical fascial defect is a risk factor for postoperative umbilical wound herniation.



Material and Methods

- 873 operations were studied
- 561 cholecystectomies
- 190 inguinal hernia repairs
- 71 Nissen funduplications
- 51 ventral hernia repairs



comparison

- The factors related to infection and incisional herniation after laparoscopy at the umbilicus, as compared with those at remote sites
- 873 consecutive Hasson cannula sites, 748 umbilicus sites, and 125 remote sites were analyzed



Infection

- This study showed that the increased infection rate at the umbilicus seems to be related to cholecystectomy and not to the umbilicus
- Excluding cholecystectomy, the umbilical infection rate was 2%, similar to that at remote sites.



Hernia

- Fascial defects at the umbilicus occur in more than 10% of patients,
- Twice as common in patients with inguinal hernias as in those with gallstone disease.
- Such defects can be used safely for laparoscopic portals of entry and, if repaired appropriately, will not contribute to postoperative incisional herniation.



Result

- The umbilical infection rate was 2%, similar to that at remote sites.
- The postoperative ventral hernia rate was at 0.8%, the same at the umbilicus as elsewhere.
- The more infection after cholecystectomy is due to the contamination of wound due to infected gallbladder.



Conclusions

- Wound infection at the umbilicus is similar to that at other sites
- Postoperative ventral hernia at the umbilicus is similar to that at other sites
- Umbilical hernia is not related to pre-existing fascial defects



THANK YOU !!!

