

SUMMARY

- Living donor liver transplantation (LDLT) is becoming a widespread technique for patients with acute and chronic end stage liver diseases with good results making liver transplantation a widely accepted treatment modality. All patients who undergo transplantation are committed to life-long immunosuppressive therapy to prevent graft rejection. Inadequate immunosuppressant can result in graft loss where as injudicious use of immunosuppressant can result in life threatening infection.

- The present study was designed to describe types and characteristics of infections occurring in the early postoperative period and the possible associated preoperative, operative, and post operative risk factors at patients underwent living related liver transplantation in National Liver Institute, Menoufiya University.

- The obtained data not only described the post liver transplantation Infections that occurred in the patients studied in the program of National liver Institute, Menoufiya University, but it also offered an information base when attempting to investigate more in the future to obtain the special characteristics -if any- of the Egyptian liver transplantation patients, and factors to be considered to lower the rates of post-liver transplantation infections.

- The Study was done on 50 living related liver transplantation patients

- The results of the study revealed the following:

- Infection complicated 38 patients out of 50 transplanted patients (76%).
- Two or more infections occurred in 28 patients (73.7%).

- The average number of infections was 2.71 episodes per patient.
- Bacterial infections accounted for 81 episode of infection (78.7%). Gram negative bacilli were the causative organisms in 50 episodes (61.7%), while 27 episodes were caused by gram positive cocci (33.4%), in 4 episodes (4.9%) the culture yielded mixed gram positive cocci and gram negative bacilli.
- 71 of infection episodes (68.8 %) occurred in the first month after transplantation and the incidence declined thereafter.
- The majority of infections are of bacterial and fungal origin occurred in the first month after transplantation, and these accounted for all of infections occurred during that early period.
- 23 episodes of chest infection occurred in 20 patients post-transplantation (52.6%).
- 9 cases had postoperative wound infection (23.7%).
- 13 patients had bacteraemia (34.2%) 8 of them were pediatric origin.
- 10 episodes of peritonitis occurred in this series (26.3%).
- 10 patients (26.3%) developed postoperative abdominal abscesses.
- 5 cases (13.2%) had postoperative soft tissue infection in the form of a venous canula site abscess as well as gum abscess.

- 18 patients (47.4%) had 36 attacks of postoperative cholangitis. 10 of them (55.5%) experienced more than one attack of cholangitis.
- 5 patients (13.2%) had postoperative urinary tract infection.
- 10 cases (26.3 %) had postoperative gastroenteritis. 5 were pediatric (50%) and others were adults.
- 8 cases (21 %) had CMV infection. 6 cases (75 %) were pediatrics and others (25 %) were adults.
- 3 cases (7.9 %) had post operative invasive Candida infection.
- Highly statistical Significant association ($P<0.01$) was found between TLC & CRP above the mean of the studied patients in relation to postoperative infection incidence.
- Highly statistical Significant association ($P<0.01$) between operative time above the mean of the studied patients in relation to postoperative infection incidence.
- Significant association was found between patients with irregular change if IV line dressing in relation to postoperative infection incidence.
- Highly statistical Significant association ($P<0.01$) was found between patients with non maintained aseptic technique during inserting canula and /or catheter in relation to postoperative infection incidence.
- Highly statistical Significant association ($P<0.01$) was found between patients with non maintained

intraoperative sterilization of all equipments in relation to postoperative infection incidence.

- Highly statistical Significant association ($P < 0.01$) was found between patients with intraoperative un sterilized equipments contact in relation to postoperative infection incidence.
- Highly statistical Significant association ($P < 0.01$) was found between patients with non early removal of canula and/or catheters in relation to postoperative infection incidence.
- Highly statistical Significant association ($P < 0.01$) was found between ICU stay above mean of studied patients in relation to postoperative infection incidence.
- Infection induced mortality was high (7 cases (77.8%) out of 9 patients)

In conclusion, the current study focuses on prevention of infection in transplanted recipients. It was found that patients with elevated preoperative CRP and TLC level were risky to acquire infection. In addition prolonged operative time and septic techniques were considered significant risk factors of infection.

The current study recommended that, designing a health educational program for the nurses, health care workers and patient's contact. Regarding causes of infection , how to prevent it and focus on the importance of donor and recipient evaluation prior to transplantation in order to prevent serious post transplantation infection, either by excluding donor or by defining the need for specific antimicrobial therapy after transplantation.

