

SUMMARY

Liver transplantation (LT) represents the only curative therapy for patients with end stage liver disease, giving excellent long-term survival. Infection is a major problem for patients who get liver transplanted. Infections like (cytomegalovirus disease, hepatitis recurrence, fungal and bacterial infection) also contribute to significant morbidity, fulminant fungemia and tuberculosis, although unusual, develop in severe immunocompromised recipient. The infection control nurse (ICN) as an expert healthcare professional will endeavor to set up and monitor quality programs, facilitate the safe delivery of patient care and performed quality control and surveillance by continually monitoring and verifying the status of process.

The present study was designed to examining the effect of implementation of nosocomial prevention strategies in liver transplant recipients through assessment of nosocomial infection among liver transplanted patients before, during and after liver transplantation surgery. And examine nursing knowledge, attitude, and behaviors before and after implementation of infection control preventive strategies for 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 and the nosocomial infection control program in 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 60 living related liver transplantation patients.
- The results of the study revealed the following:
 - Infection complicated 10 patients of the 60 patients (16.7 %)
 - The average number of infections was 2.7 episodes per patient

- The majority of infections due to bacteria and fungi occurred in the first month after transplant and these accounted for virtually all of infections during that early period.
- There was a statistical significant difference ($P < 0.01$) between the infection rate before and after implementation of the nosocomial infection control program (16.7% after implementation of the nosocomial infection control program in the current study compared to 70 % infection rate before applying infection control program)
- There was a statistical significant difference ($P < 0.01$) between pre-operative ascitis and incidence of infection post liver transplantation.
- There was a statistical significant difference ($P < 0.01$) between pre-operative GIT bleeding and incidence of infection post liver transplantation.
- There was a statistical significant difference ($P < 0.01$) between pre-operative *attacks of encephalopathy* and incidence of infection post liver transplantation
- There was a statistical significant difference ($P < 0.01$) between pre-operative *Diabetes* and incidence of infection post liver transplantation.
- There was a statistical significant difference ($P < 0.01$) between pre-operative *abnormal CT chest, abnormal chest X ray and abnormal upper GIT endoscopy* and incidence of infection post liver transplantation.
- There was a statistical significant difference ($P < 0.01$) between prolonged operative time more than 12 hours and prolonged ICU stays more than 7 days (the maximum ICU stay days in non infected patients) and incidence of infection
- There was a statistical significant difference ($P < 0.01$) between postoperative prolonged ICU stays more than 7 days (the maximum ICU stay days in non infected patients) and incidence of infection
- There was a statistical significant difference ($P < 0.01$) between the improvement of nurse's knowledge and the implementation of the infection control program

- There was a statistical significant difference ($P < 0.01$) between the improvement of nurse's attitude and the implementation of the infection control program
- There was a statistical significant difference ($P < 0.01$) between the improvement of nurse's practice and the implementation of the infection control program

In conclusion, the current study focuses on prevention of infection in transplanted recipients and improve the nurse's knowledge, attitude and practice. It was found that patients with elevated preoperative CRP and TLC level were risky to acquire infection. In addition prolonged operative time and preoperative abnormal radiology tests considered significant risk factors of infection. And it also found after implementation of the nosocomial infection control program the nurse's levels of knowledge, attitude and practice was improved which also reflected on the rate of transmission of infection in patients with liver transplants where the infection rate decreased to 16.7% after implementation of the nosocomial infection control program in the current study compared to 70% infection rate before implementation of the program

The current study recommended that, Maintain continued assessment and evaluation of the nurse's knowledge, attitude and practice regarding to the all instructions in the nosocomial infection control program. Maintain continued Patient and family/visitor education regarding infection prevention and control programs. Inclusion of infection prevention and control duties into the job description of every hospital employee and contract staff. All staff (employed and credentialed) will be expected to know and be held accountable for following facility infection prevention and control policies. And maintain adequately fund infection prevention and control programs, including staffing and software needs. Acute care facilities without appropriate resources should identify outside staff and resources to assist as needed in order to reduce the infection rate after the transplantation surgery.