in rat. For explore the mechanisms of exercise-induced airway inflammation.

**Methods**: Twenty 8 old male SD rats were randomly divided into 2 groups: control group (CG, n = 10), experimental group (EG, n = 10). The EG rats underwent a period (120 min/day for 7 day) of exercise on a high speed treadmill (25 m/min). The mRNA expressions of TNF-α, IL-4 and IFN-γ in lung tissue were detected by RT-PCR.

**Results**: The mRNA expressions of TNF-α and IL-4 in the lung tissues of EG were 31.4±7.5%, 53.7±8.2% respectively. There was a significant increase in expression of TNF-α and IL-4 in the lung tissues in EG compared with CG, the CG were 12.3±3.6 and 21.4±5.7% (P < 0.01). The mRNA expression of IFN-γ in lung tissue was 14.3±5.1%, it is much lower than that in EG compare with CG, CG was 26.5±7.2% (P < 0.05).

**Conclusion**: Strenuous exercise can inhibit the expression of IFN-γ and increases the expressions of TNF-α and IL-4 in lung tissue of rats. The changes of inflammation-related cytokines may play a key role in the formation of exercise-induced airway inflammation.

**Poster Session – Social & Public Health Issues**

**PP-224 Nosocomial infection in living donor liver transplantation and strategies for prevention**

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**Background and Aims**: 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. Infection is the most frequent cause of morbidity and mortality following liver transplantation in Egypt. This is a cross sectional hospital based study describe types, characteristics and rate of infections occurring in the early postoperative period and the possible associated preoperative, operative, and post operative risk factors in patients underwent living related liver transplantation aiming at designing strategy for infection control protocol in liver transplant program applied at National Liver Institute.

**Methods**: 50 living donor liver transplantation patients’ provided informed consent to participate. Participants were interviewed to gather risk factors information using multiple question model previously prepared questionnaire, biophysiological measures and observation checklist.

**Results**: Living donor liver transplantation complicated infection was 76.0%. 68.8% of infection episodes occurred in the first month post transplantation and the incidence declined thereafter. Infection induced mortality was 77.8%.

**Conclusion**: This study confirmed that high infection rate was associated with prolonged operative time (14.8±3.07) and septic techniques used intra and post-operative. Designing a good healthcare educational program for the nurses, health care workers and patient contacts’ focusing on the prevention of infection related risk factors and careful evaluation of donor and recipient prior to liver transplantation prevents serious post transplantation infection, either by excluding risky donors or by defining the need for specific antimicrobial therapy post liver transplantation.

**PP-225 Skin manifestations in liver diseases**

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The liver is the largest internal organ and the second largest organ in the human body after the skin. An association between the skin and the liver has been recognized for centuries. Skin manifestations may be the first clue that a patient has liver disease. Recognizing these signs is crucial to diagnose liver conditions early. Then we are better able to promptly treat the underlying liver disease and the skin lesions. Although many of these changes are nonspecific, some are associated with distinct liver diseases and correlate with the severity of hepatic pathology. It is important for physicians to be familiar with the spectrum of these manifestations. This article reviews the important cutaneous manifestations of specific liver diseases. We focus first on skin conditions that may represent liver disease, and then we discuss several major liver diseases and their typical cutaneous manifestations.

**PP-226 Large aggregate in hemorrhagic fever with renal syndrome**

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**Introduction**: Hemorrhagic fever with renal syndrome (HFRS) is a zoonosis caused by hantavirus. The aggregate is a clinical features characteristic of severe HFRS. We describe a case of HFRS presented a large aggregate treated successfully with continuous renal replacement therapy early.

**Case description**: A 59-year-old man presented with a 5-day history of fever, headache, lumbago and 1-day of oliguria. The notable signs including facial and chest flushing, soft palate and conjunctiva hemorrhage, and chemosis. Serum test showed the presence of specific IgM and IgG antibodies to Hantaan virus. HFRS was diagnosed. Laboratory evaluation showed urea 45 mmol per liter and creatinine 1077 μmol per liter. And a granulation tissue-like aggregate (Figure 1), 3 cm by 2 cm by 2 cm, was found in the urine. Patient underwent hemodialysis three times per week for acute renal failure with fluid overload in 2 weeks subsequently. A complete remission of renal dysfunction appeared after the 28-day hospitalization. The aggregate is present at oliguric phase unexceptionally, usually lamellar or floccular, and the number and size is associated with the extent of kidney damage. The successful clinical outcome of this case reinforces the usefulness of hemodialysis early in the management of severe HFRS.

Figure 1.