

Clostridial gas gangrene after liver transplantation

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Gas gangrene is usually caused by Clostridial bacteria which are inoculated into devitalized tissue either following traumata or postoperatively or in combination to ischemic events - resulting in clostridial gas gangrene there. The treatment of such infections usually involves surgical debridement of infected tissue, antibiotic therapy and local hyperbaric oxygenation.

Liver transplantation is still the treatment of choice for patients suffering from end stage liver diseases. In recipients after liver transplantation hepatic gas gangrene of the graft has been described and graft related septicemia by enteric organisms has been related to. Described outcomes of hepatic gas gangrene are controversial in the literature.

A 40 year old female patient who had been liver transplanted due to kryptogenic cirrhosis in 02/2010. Due to partial bile duct necrosis a choledochojejunostomy had to be performed two weeks after transplantation. After recovery our patient was at home for one week. Then she presented in our out patients clinic with progressing fatigue, diarrhoea and fever. Laboratory analysis revealed a CRP of 200.4 mg/dL (< 8 mg/dL) and a leukozytosis of 87.6 G/l (4.4-11.3 G/l) with laboratory signs of liver necrosis damage (AST 3965 U/l [< 30 U/l] ALT 1457 U/l [< 35 U/l], Bilirubine 19.3 mg/dL [0.1-1.2 mg/dL]). A computed tomography scan of the abdomen revealed massive aerobilia and two gas filled cavities in the right and the left liver lobe. An instantly performed hepatectomy during cardio pulmonary bypass and a hygienic culture of the liver and of various intra abdominal abscesses revealed a massive infection with clostridium perfringens resembling a hepatic gas gangrene. The patient died intraoperatively due to impossible weaning of the cardiopulmonary bypass.

As a salvage therapy liver retransplantation after immediate surgical debridement of necrotic tissue has been suggested in literature. The role of ascending infections via the choledochojejunostomy might have an impact. In an immuncompromised patient infections such as clostridial gas gangrene can develop rapidly so effective treatment may come too late.

Biography

Silvia Rosa Schaffellner was born in 1960 at Syria, Austria and completed her medical studies in 1991 at Karl-Franzens Universitat Graz and then attained her Diploma in 1996 as General Physician and completed her training in General Surgery for 6 years, i.e. from 1996-2002 and currently working as Chief resident of the transplant out-patients department & Assistant Lecturer in Department for Transplantation Surgery. Her research interests are Xenotransplantation of Islet cells, Immunosuppression and Liver Transplantation.

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