

CLINICAL NUTRITION

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Role of nutrition management of chylous ascites post pediatric liver transplantation, single center experience

Introduction: Chylous ascites (CA) is defined as the accumulation of a milky or creamy, triglyceride-rich peritoneal fluid due to the presence of intestinal lymph in the abdominal cavity. The treatment of CA includes nutrition, pharmacological and seldom surgical therapies.

Aim: The aim of this review is to outline the resolution rate of CA post pediatric liver transplantation treated by dietary modification including low fat diet supplemented with medium-chain triglycerides (MCT) based formula.

Method: From January 2011 to September 2015, 188 pediatric liver transplantation procedures have been performed in our centre. Out of these 19 cases were confirmed to have CA. The age ranged between 4 months to 11 years old (11 girls and 8 boys). CA in these 19 cases developed between day 4-5 post liver transplantation, which related to the time of oral intake. CA was suspected because of milky or creamy peritoneal fluid drainage that began after oral and it was diagnosed on the basis of the triglyceride, cholesterol, leukocyte and lymphocyte contents of the liquid. Nutritional treatment is done by following low fat diet and using MCT-based formula for 4-6 weeks, No TPN (Total Parenteral Nutrition) or pharmacotherapy treatment were required.

Results & Discussion: The nutrition treatment resulted in resolution of the CA in all of our cases (100%) within 1-2 weeks. Resolution was confirmed by measurement of the chyle output via a drainage (<2 ml/kg/day) and normalization of the TG level in fluid (0.7-0.5 mmol/l). The diet was kept for a total of 4-6 weeks in spite of resolution to avoid the recurrence due to early cessation of the diet.

Conclusion: Chylous ascites may appear due to injury of the lymphatic system in the periportal and retrohepatic areas during hepatic resection and inadequate ligation of injured lymphatic vessels. Application of MCT-based formulae with low fat diet alone was effective in 100% of the cases. More invasive treatments like TPN, pharmacological treatments or surgery should not be thought of as first option. After resolution of CA, low-fat diet and MCT-based formulae can be converted to regular diet and regular milk after 4-6 weeks and with no risk of relapse.

Biography

Sahar Madkhali is a Senior Clinical Dietitian, graduated in Community Health-Clinical Nutrition, King Saud University in Riyadh, Saudi Arabia in 2002. She has completed a Master's degree in Sport Nutrition from Loughborough University, UK in 2006. She is working as a Clinical Dietitian in King Faisal Specialist Hospital & Research Center, Riyadh since 2003. She has specialized in Pediatric Surgery & Liver Transplant since 4 years, covered Metabolic Nutrition for 2 years and most of the adult/pediatrics specialty in the hospital.

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