



# 17º CONGRESSO BRASILEIRO DE GASTROENTEROLOGIA PEDIÁTRICA

Construindo pontes entre a ciência e o cuidado

PORTO DE GALINHAS - PERNAMBUCO

## Trabalhos Científicos

**Título:** Relation Between Biliary Cirrhosis And Hepatopulmonary Syndrome And Their Reversibility In A Common Bile Duct Ligation Experimental Model

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**Resumo:** **Resumo Objetivo(s)** This study aims to clarify the relation between biliary cirrhosis and the onset of hepatopulmonary syndrome, while further analyzing their physiopathology. **Método** Twenty-one-day-old Wistar rats were subjected to common bile duct ligation and were allocated into groups A1-A5 and B1-B5. The animals in group A were sacrificed 2, 3, 4, 5 or 6 weeks after biliary obstruction, while those in group B were subjected to biliodigestive anastomosis 2, 3, 4, 5, or 6 weeks after the first procedure and sacrificed 3 weeks later. At the time of sacrifice, arterial blood was collected for the analyses, and samples from the liver and lungs were collected for the histological and molecular analyses. The liver and lung tissues were stained with hematoxylin-eosin. The gasometric parameters as well as the expression levels of ET-1, eNOS and NOS genes in the lung tissue were evaluated. **Resultados** From the total of 42 blood samples, 15 showed hypoxemia ( $pO_2 < 85$  mmHg), and 17 showed an increased oxygen gradient [ $p(A-a) O_2 > 18$  mmHg], with no difference between groups A and B. The analysis of liver histology revealed increased ductal proliferation with time after the common bile duct ligation, and animals that underwent reconstruction of bile flow showed less ductal proliferation. Pulmonary alterations consisted of decreased parenchymal airspace and increased medial wall thickness. Biliary desobstruction could promote improvements in the lung histology after 5 and 6 weeks. The molecular analyses showed a decreased eNOS expression of desobstructed animals after 6 weeks when compared to obstructed animals after 3, 4 and 5 weeks ( $p=0.022$ ,  $p=0.005$  and  $p=0.048$ , respectively). **conclusão(ões)** The present model showed lung tissue alterations promoted by biliary obstruction. The biliodigestive anastomosis had no clear direct effects on these alterations.