ALTERNATIVE TREATMENT OF THE BACTERIAL CONTAMINATION OF BILE AND LIVER IN MONGREL DOGS, USING CEPHALON, AN NEW HYBRID MOLECULE (B LACTAMIC-FLUOROQUINOLONE)

F. Villegas - Alvarez^{1,2}, A. Carmona-Mancilla¹, H. Sumano-Lopez³, B.E. Perez- Guille¹, J.F. Gonzalez-Zamora¹, R.E. Soriano- Rosales¹, R. Coria- Jimenez⁴, M.A. Jimenez-Bravo¹, L. Ocampo-Camberos³

¹Experimental Surgery Laboratory, Instituto Nacional de Pediatría, ²Surgery Department. Facultad de Medicina, ³Pharmacology Department. Facultad de Medicina Veterinaria y Zootecnia, Universidad Nacional Autónoma de México, ⁴Experimental Bacteriology Laboratory, Instituto Nacional de Pediatría, Mexico City, Mexico

Bacterial contamination after hepatic- biliary-enteric bypass (HBEB) in children with biliary atresia requires an effective treatment. Involved bacteria often develops antimicrobial resistance to conventional antibiotics. A longitudinal, randomized, single blind study was done to evaluate a new antibacterial hybrid molecule (β -lactamic-fluoroquinolone) named cephalon after HBEB. Four groups of mongrel dogs were operated on three consecutive periods. During the first intervention cultures of bile and liver were obtained and assessed, followed by obliteration of common bile duct and HBEB to groups A, B and C. Group D was the control group. Ten days later new samples were repeated. Once identified the presence of microorganisms in bile samples and in more than an half of liver cultures, group A received conventional treatment based on ampicillin/gentamicin and groups B and C, received the cephalon in two different doses during 10 days in all cases. Further samples were processed for bacteria and additional liver biopsies were obtained for histopathological analysis. All three treatments reverted bacterial contamination in the liver; more than half of the bile samples were negative or showed a significant decrease in the number of colony forming units ($p = 0.002$). None histopathological lesions were proved. Comparison of efficacy among antibacterial treatments revealed undistinguishable efficacy in this short-term assessment of bacterial contamination after HBEB in mongrel dogs. The use of cephalon could be considered as a viable prophylaxis and treatment in bacterial infections occurring in HBEB patients. Additional studies are needed to assess long-term impact of the cephalon in this setting.