

## ROB THE RATIO OF LITHOCHOLIC TO DEOXYCHOLIC ACID: A HOST FACTOR IN LARGE BOWEL CARCINOGENESIS

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There is growing evidence implicating bile acids (BA) in colorectal carcinogenesis: i) the presence of BA binding sites in cancerous colonic mucosa, ii) BA cause dysplastic changes in the colonic mucosa, iii) BA are co-carcinogenic in the rat colon and iv) co-mutagenic in the Salmonella mutagenesis assay, v) a suggested correlation between colorectal cancer in humans and the mean fecal BA concentration. But as shown recently neither lithocholic acid nor deoxycholic acid nor their sum was a discriminant, but the ratio lithocholic to deoxycholic acid was a good parameter which was related to adenoma size. This communication will illustrate and discuss these facts, presenting both experimental and epidemiological evidence to support that the ratio of lithocholic to deoxycholic acid is an important parameter with regard to colonic carcinogenesis. Other structurally related steroids will also be discussed which could play a role as host factors in such a pathologic process.

## ROB

## HEPATIC METABOLISM OF DOXORUBICIN IN MICE AND RATS

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Liver homogenates of rat and mouse are able to transform doxorubicin (an anthracycline antitumour antibiotic) into inactive aglycones. However, the fresh liver of a treated animal never contains these metabolites. We have studied this metabolic transformation in various model systems:

1. IV injection of the drug to the animal and study of the metabolites in fresh liver and in post-mortem incubated liver or liver homogenates
2. isolated perfused rat liver, and study of the metabolites in the perfusion solution, in the bile and in the liver
3. isolated and cultured hepatocytes, and study of the metabolites in the culture medium and in the cells.

The aglycones are only obtained in total liver or total liver homogenates after post-mortem incubation. They are never present in perfusion solution nor in bile. They are never synthesized in hepatocytes, even after homogenization. We therefore propose the hypothesis that this metabolic pathway is only exhibited after cytolysis of hepatic cells (distinct from hepatocytes), probably by release of lysosomal hydrolases.

## ROU

## ANTI-EBV ANTIBODY IN CHILDREN WITH NON-HODGKIN'S LYMPHOMA

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The pattern of antibody reactivity against Epstein-Barr virus (EBV) antigens in children with non-Hodgkin's lymphoma was investigated. IgM, IgA and IgG antibody against viral capsid antigen (VCA), and IgG antibody against early antigen (EA) and EBV-determined nuclear antigen (EBNA) were detected. From 30 children examined, only 4 (13%) were anti-EBV negative. Eleven children (37%) expressed antibody against EA and/or against VCA in the IgM and IgA class. Since all of these antibodies have generally been considered as markers of active virus infection or virus reactivation, the present findings may indicate that EBV plays some role in the development of the disease. However, it remains to be determined whether the virus was the etiological agent in at least some cases or whether it was reactivated due to the immunosuppressive condition associated with the disease or its therapy.