

Supplementary Information

Fatty Liver Promotes Fibrosis In Monkeys Consuming High Fructose

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Experimental diets were both low fat (<17% of calories supplied as fat) and low cholesterol (<75ppm) (1). Complete nutritional breakdowns of the diets have been previously published (1).

All histological analyses were done by a blinded individual. Lipid droplets were counted in ten random regions of hepatic tissue around portal triads at 40x magnification. The diameters of ten droplets were then measured at 20x magnification from five different regions of MTC stained tissue for each monkey. The droplet diameter was normalized to the number of droplets. Periodic acid-Schiff staining was performed to confirm that lipid droplets were not confused with cytoplasmic glycogen and CD3 staining was used to quantify lymphocytes.

Hepatic fibrosis was scored using imaging software (Image Pro Plus, Media Cybernetics, Bethesda, MD). First, the collagen stained area of the entire histological section was measured, excluding the large vasculature and capsule. A second measure of fibrosis was performed by quantitating triplicate regions of interest, avoiding the portal triads, capsule and vasculature, at the 12, 4, and 8 o'clock positions. One HFr-consuming monkey was excluded due to a pathological diagnosis of chronic active hepatitis with fibrosis, thus the fibrosis extent in the liver was an extreme outlier.

Literature Cited

1. Kavanagh K, Wylie AT, Tucker KL, Hamp TJ, Gharaibeh RZ, Fodor AA, et al. Dietary fructose induces endotoxemia and hepatic injury in calorically controlled primates. *American Journal of Clinical Nutrition*. 2013;98(2):349-57.