**Trimethylamine (TMA) kidney excretion as a possible indicator of liver damage.**

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Mild liver damage may increase TMA-uria due to less enzyme available to convert TMA to its oxidized form, TMAO. We hypothesise that this may be a useful diagnostic tool to diagnose mild liver damage. Ozone is a potent oxidant that can damage liver tissue when given in high enough dosages. We used this characteristic to cause liver damage. Six healthy male baboons were used. Blood was collected (5% of blood volume) in heparin. The blood was treated with an oxygen/ozone mixture containing 3-5% ozone. (1 ml gas per ml of blood). Following treatment, the ozogenated blood was reinfused into the baboons. Blood was collected before reinfusion again 0.5, 1.0, 4.0, 24 and 48 hours after reinfusion to determine serum levels of the liver enzymes. Urine was collected from 24 - 0 hours, 0 - 24 hours and 24 - 48 hours to determine TMA and TMAO. Serum levels of alanine transaminase, aspartate transaminase and lactate dehydrogenase increased significantly.TMA levels were measurable in the pre injection urine samples but not after reinfusion. In contrast, TMAO levels were increased in the post ozogenated blood, as measured by the increased levels of especially alanine transaminase. We could not relate liver damage to an increase in TMA levels. We propose that the higher levels of oxidant activity following infusion of ozogenated blood caused spontaneous oxidation of TMA. As a result it could not be measured and we were unable to test our hypothesis.