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Relationship between Nonalcoholic Fatty Liver Disease and Vitamin D Nutritional Status in Obesity

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Nonalcoholic fatty liver disease (NAFLD) has become one of the most common chronic liver diseases worldwide. NAFLD is characterized by an accumulation of fat in the liver in the absence of such secondary causes as alcohol abuse, viral hepatitis, and so forth, while presenting such wide-ranging histological features as simple macrovesicularsteatosis and nonalcoholic steatohepatitis (NASH) that can evolve into fibrosis, cirrhosis, or hepatocellular carcinoma.

Vitamin D deficiency (VDD) can result from problems relating to the absorption of vitamin D, hydroxylation due to liver failure, inadequate exposure to sunlight and others factors. It is one of the most prevalent micronutrient deficiency in the world, with a billion people estimated to be deficient. Individuals with obesity, including those suffering from liver disease, are more susceptible to VDD. A potential explanation for this deficiency is, when there is damage of the liver, synthesis of 25(OH) Dmay be impaired by the presence of steatosis. VDD can exacerbate NAFLD at least in part through an inflammatory-mediated pathway, given how vitamin D mediates its intracellular signals via the vitamin D receptor (VDR), which is constitutively expressed in the liver.

There is limited information on the potential role VDD plays in NAFLD diagnosed via liver biopsy, mainly where NASH is concerned.

Thus, the aim of this presentation will be demonstratethe relationship between serum 25(OH)D concentrations andNAFLD staging, mainly, as diagnosed via liver biopsy, the gold standard method, in extreme obesity (BMI $\geq$ 40kg/m^2).

Biography:

Dr. Adryana Cordeiro is a Clinical Nutritionist; she completed her PhD and MSc in Science of Medical Clinic Program/Faculty of Medicine/UniversityFederal of Rio de Janeiro (UFRJ). She is a Researcher at Micronutrients Research Center/UFRJ & also Researcher of Post-doc/Biomedicine Department/Biochemistry Unit/Faculty ofMedicine/University of Porto– Portugal.