

A Different Approach to Treating Liver Disease Patients

Background

Pre-cirrhotic non-alcoholic fatty liver disease

- Associated with poor dietary habits
- Biomarkers include triglyceride/glucose levels

Pre-cirrhotic alcohol-related liver disease

- Attributed to excessive drinking without restraint
- Biomarkers include PEth and liver enzyme levels (ALT and AST)

Current Problems

Liver disease currently accounts for:

- Approximately 3.5% of deaths worldwide

Physicians struggle to monitor patient's progress on a daily basis, as:

- Blood tests are administered only 3 times a year
- Patient adherence to lifestyle recommendations remains under 50%

Pre-cirrhotic NAFLD Management

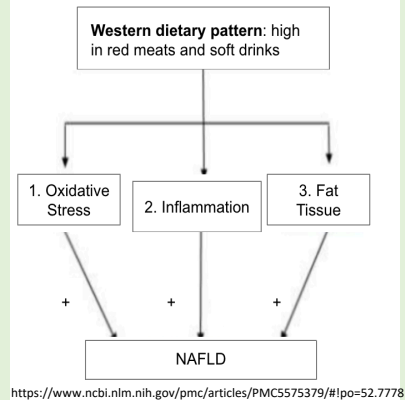
Test Kits Designed for Patients:

The PTS Diagnostics TG Test Trips utilize lancets to provide triglyceride levels to the patient in under 5 minutes. Dexcom's G6 CGM System is a small sensor that's placed under the skin to enable continuous glucose monitoring. Both methods yield an imprecision under 10%, thus proving reliable

Benefits of Dietician:

Patients with access to a dietician had a:

- 0% mortality rate after one year (control patients had a 20% mortality rate)



Western diets are associated increase the risk of being diagnosed with NAFLD

Pre-cirrhotic ARLD Management

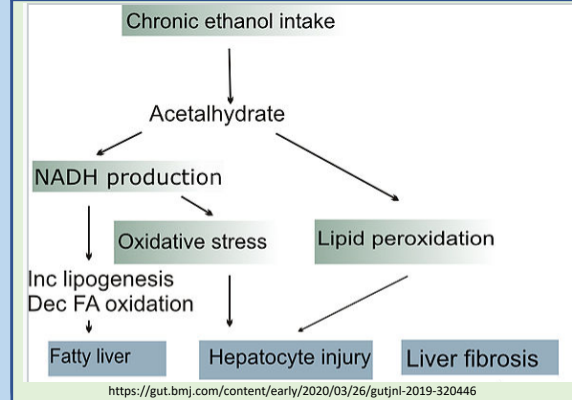
Test Kits Designed for Patients:

PEth test kits use lancets to obtain whole blood levels and are referenced as a direct biomarker of alcohol consumption. Self Diagnostics Liver Screen Home Test Kits detect ALT/AST concentrations over 80 IU/L through incorporating test strips. Both tests have accuracy rates above 90%.

Benefits of Counseling:

Drinkers are:

- Twice as likely as control patients to reduce drinking 6 months after counseling



Alcohol consumption increases inflammatory responses in liver

Conclusion

Liver disease treatment should follow a two step process. First, point of care testing should be implemented:

- Represents a reliable method of obtaining daily biomarker levels
- Eliminates the need for blood tests

Additionally, incorporating either a dietician or a counselor has been shown to promote health and wellness:

- Allows for more personalized care for the patient

References

Asrani SK, Devarbhavi H, Eaton J, Kamath PS. Burden of liver diseases in the world. *J Hepatol*. 2018 Sep 26. [accessed 2020 Aug 27];70(1):151-171. <https://pubmed.ncbi.nlm.nih.gov/30266282/>. doi:10.1016/j.jhep.2018.09.014.

Saberifiroozi, M. Improving quality of care in patients with liver cirrhosis. *Middle East J Dig Dis*. 2017 Oct. [accessed 2020 Aug 27];9(4):189-200.

Perla FM, Prelati M, Lavorato M, Visicchio D, Anania C. The role of lipid and lipoprotein metabolism in non-alcoholic fatty liver disease. *Children (Basel)*. 2017 Jun 6. [accessed 2020 Aug 27];4(6):46.

Kearney-Strouse J. NAFLD treatment starts with weight loss, then other modes. *Internal Medicine Meeting*. 2016 Aug. [accessed 2020 Sep 12]. <https://acpinternist.org/archives/2016/07/NAFLD.htm>.