

Diagnosis/Definition:

NASH is the acronym for non-alcoholic steatohepatitis, or fatty liver associated with hepatic inflammation. This is a condition which can be associated with obesity, diabetes or hepatitis C or may occur idiopathically. This condition has an acute inflammatory response associated with the fatty infiltrates in the liver.

NASH is a diagnosis of exclusion. After other reasons for the increased liver enzymes have been ruled out and biopsy shows steatohepatitis, then the patient is diagnosed with NASH. In the setting of risk factors, a suggestive radiological picture, absence of other diagnoses and mildly elevated transaminases, a presumptive diagnosis may be made without liver biopsy by the GI consultant.

Initial Diagnosis and Management:

You may either treat the patient yourself in primary care or you may refer the patient to GI. If you decide to treat the patient in primary care then the following needs to be done:

Laboratory work-up:

- LFTs
- Iron, Iron Sat, Ferritin
- Alpha fetoprotein
- Hepatitis A total antibody (IgM should be drawn if this is positive)
- Hepatitis BsAg and BsAbs
- Hepatitis C Ab
- CBC with differential
- ANA
- Anti-smooth muscle antibody

If all of the above lab tests are negative (except the high AST/ALT) then the patient needs to be vaccinated against hepatitis A and B.

Order an abdominal ultrasound and if this shows hepatic fatty infiltrates then treat the patient for NASH.

Ongoing Management and Objectives:

- 1) Send the patient to see the nutritionist who can help with a dietary plan to lose weight.
- 2) Begin the patient on 800 units of Vitamin E q d which may help prevent formation of superoxide radicals.
- 3) Counsel the patient on an exercise program and being persistent with their weight loss, (abdominal weight is the most important to lose), i.e., a steady weight loss is better in the long run than a fast one which is registered in the end.
- 4) Patients should be re-seen every 3 months in clinic and have their liver function panel re-drawn. If they have not normalized their liver enzymes by 1 year, then they need to be seen in the GI clinic.

Indications for Specialty Care Referral:

Patients who have not normalized their liver enzymes by their one year treatment visit.

Patients who have co-morbid conditions such as HCB and NASH.

Patients who need to be seen in the obesity clinic (run by the endocrinology service) for morbid obesity (BMI > 40) and NASH.

Unclear etiology as to why the patient's liver enzymes are elevated despite blood testing/US of Abd.

Disclaimer: Adherence to these guidelines will not ensure successful treatment in every situation. Further, these guidelines should not be considered inclusive of all accepted methods of care or exclusive of other methods of care reasonably directed to obtaining the same results. The ultimate judgment regarding the appropriateness of any specific procedure, therapy, or referral must be made by the physician/provider in light of all circumstances presented by an individual patient.

