Obese children and adolescents

Perform LFTs and sonography in all

If normal

Follow for central obesity & consider fatty liver at MRI if clinical signs of insulin resistance (IR)

If US hyperechogenicity or increased AST/ALT

Consider age, history, and physical examination

Infants and children <3 y (NAFLD less probable)

Suspect first other disease: genetic/metabolic, syndromic, systemic causes
workup
NAFLD diagnosis must be critically questioned

Children 3-10 y (NAFLD less probable)

NAFLD diagnosis should be based after exclusions of viral, toxic metabolic (e.g. WD), systemic causes (e.g. CD) workup

Children >10 y (NAFLD more probable)

If central obesity, IR and no clinical signs of progressive liver disease

Trial of weight reduction and lifestyle changes for 3-6 months

If negative or inconclusive

If persistent hypertransaminasemia or hyperchogenicity at US

Perform laboratory workup of exclusion of other causes

If sustained hypertransaminasemia or hyperchogenicity at US

Consider liver biopsy after completion of laboratory diagnostic workup

Consider liver biopsy

Consider early liver biopsy

Consider liver biopsy

Consider early liver biopsy

Nonobese children adolescents with hypertransaminasemia and hyperechogenic liver

Family history of NASH
Hepatosplenomegaly
Comorbidities
Hypothalamic
Expansive processes
Marked hypertransaminasemia
Elevated fibrosis serum markers

NAFLD diagnosis must be based after exclusions of viral, toxic metabolic (e.g. WD), systemic causes (e.g. CD) workup

If central obesity, IR and no clinical signs of progressive liver disease

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