Prevalence of Autoantibodies in Children with Nonalcoholic Fatty Liver Disease

The prevalence and clinical significance of autoantibodies in children with nonalcoholic fatty liver disease (NAFLD) remain unknown.

- Anti-neutrophil cytoplasmic antibody: 19%*
- Anti-F-actin antibody: 13%*
- Anti-liver kidney microsomal antibody: 0%*
- Anti-nuclear antibody (ANA): 43%*
- Anti-smooth muscle antibody: 39%*
- Any combination of these antibodies: 66%*

The following autoantibodies were found in children with NAFLD without autoimmune hepatitis (AIH): *of children

Children with biopsy-proven NAFLD frequently exhibit positive autoantibodies in the absence of AIH.

- Positive ANA and alanine aminotransferase (ALT) >80
  - 4.6 ↑ odds of NAFLD activity score ≥5
- Serial monitoring → Autoantibody positivity resolution in 10-50% of children

Finer points:
Future studies should assess:
- Serum immunoglobulin G and vitamin D levels
- The entire spectrum of children with NAFLD
- Clinical factors affecting antibody resolution

Among a cohort of children with suspected NAFLD, investigating ANA positivity with ALT levels may help to distinguish children who are at a greater risk of nonalcoholic steatohepatitis.

Autoimmune Antibodies in Children and Adolescents with Nonalcoholic Fatty Liver Disease
Kohut et al. (2022)