Alkaline Phosphatase Responsiveness to Ursodiol Therapy in Patients with Primary Biliary Cholangitis and Varying Degrees of Liver Fibrosis

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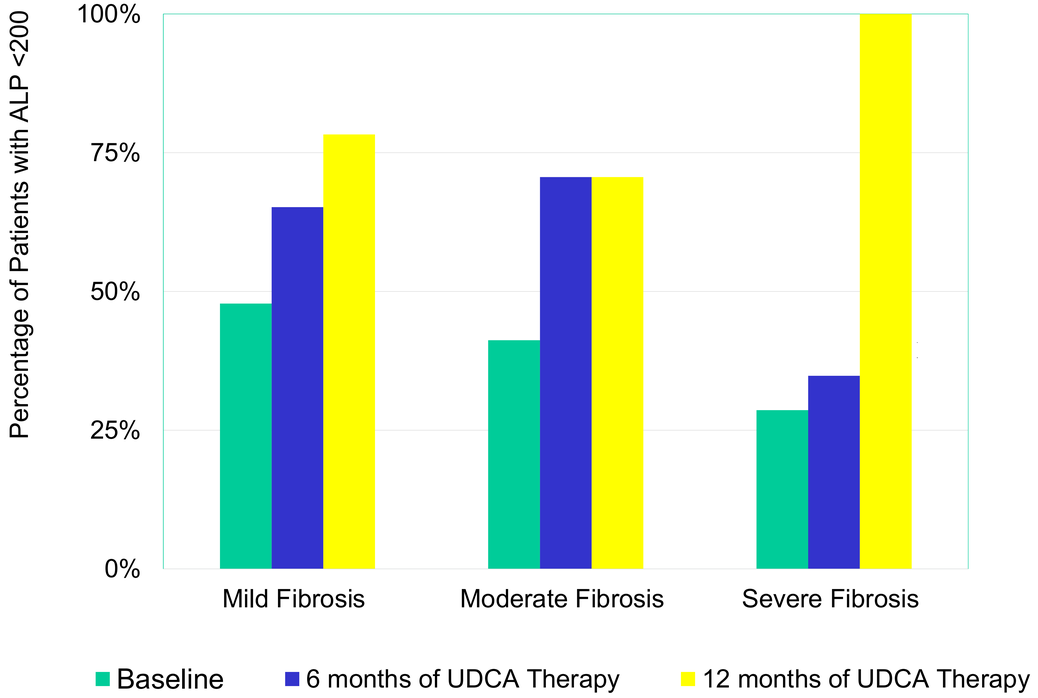
Introduction

- Primary biliary cholangitis (PBC) is an inflammatory cholestatic liver disease that destroys the bile duct.
- PBC is frequently associated with varying degrees of liver fibrosis measured by fibroscan.
- Firstline treatment is ursodiol (UDCA) therapy.
- This study aims to elucidate the consequences of liver fibrosis on the effectiveness of UDCA therapy indicated by alkaline phosphatase (ALP) levels in PBC patients.

Methods

- At a single academic center, a retrospective review was conducted to obtain ALP levels in patients with PBC at the start of UDCA therapy and at 6 and 12 month periods.
- Degree of liver fibrosis determined by fibroscan was recorded.
- Patients were categorically separated into the following groups: mild (<8 kPa), moderate (8-14 kPa), and severe (>14 kPa).

ALP Resolution in Patients with Varying Degrees of Liver Fibrosis



Patient Data

- 47 PBC patients treated only with UDCA.
- Mean age was 59.3 years old (range 30-85).
- 78.7% (n=37) of the patients were females.
- 23 patients with mild fibrosis, 17 patients with moderate fibrosis, and 7 patients with severe fibrosis.

Results

- The mean liver stiffness as per fibroscans was 9.7 kPa (range 3.0-41.5) with a SD of 6.65.
- The 3 and 5 year survival rates were 100% (n=47).
- The results of the chi-square test showed no significant association between ALP >200 and categorical liver fibrosis at 6 and 12 months.
- Linear regression analysis showed no significant liver fibrosis effect on change in ALP >200 from baseline to 6 and 12 months.

Conclusion

- The number of patients with ALP <200 across all fibrosis groups increased with UDCA therapy at 6 and 12 months compared to baseline.
- Based on our results, varying degrees of liver fibrosis do not appear to alter the effectiveness of UDCA in PBC patients.
- If ALP remains >200 after 12 months of UDCA therapy, additional therapeutics should be considered.