Branched-Chain Amino Acids in Cirrhosis with Sarcopenia

To determine the effect of branched-chain amino acid (BCAA) supplementation on muscle mass in patients with cirrhosis and sarcopenia, a pilot, prospective, randomized and double-blind study of a cohort of 32 patients with cirrhosis and sarcopenia diagnosed by computed tomography scan who underwent a nutritional and physical activity intervention for 12 weeks was carried out. There was division into 2 groups (placebo 17 patients; BCAA 15 patients).

Baseline characteristics were similar in both groups. After treatment, only the BCAA group presented a significant improvement in muscle mass (43.7 vs. 46 cm/m). A total of 17 patients (63%) presented improvement in muscle mass overall, which was more frequent in the BCAA group (83.3 vs. 46.7%).

Regarding frailty, there was a significant improvement in Liver Frailty Index in the global cohort (N = 32), after the 12 weeks (4.2 vs. 3.9). This difference was significant in both groups: in the placebo group (4.2 vs. 3.8), and in the BCAA group (4.2 vs. 3.9). After treatment, the BCAA group had a higher increase in zinc levels than the placebo group (12.3 vs. 5.5). In addition, there was a trend for greater improvement of albumin levels in the BCAA group (0.19 vs. 0.04).

It was concluded that BCAA supplementation improves muscle mass in cirrhotic patients with sarcopenia.


Treatment in Primary Biliary Cholangitis Refractory to Ursodeoxycholic Acid

To assess the effectiveness and adverse effects of treatment of refractory primary biliary cholangitis (PBC), data from patients included in the ColHai Registry treated with OCA (obeticholic acid), fibrates, or both and were recorded during one year, as well as adverse effects and treatment discontinuation.

A total of 86 patients were treated with OCA, 250 with fibrates (81% bezafibrate; 19% fenofibrate), and 15 with OCA plus fibrates. The OCA group had baseline significantly higher alkaline phosphatase (ALP) and lower platelets than fibrates. Both treatments significantly decreased ALP, GGT, and transaminases and improved GLOBE score. Albumin and immunoglobulin type M improved in the fibrates group. ALP decrease was higher under fibrates, whereas ALT decline was higher under OCA.

Although baseline transaminases and GGT were higher in patients with OCA plus fibrates,
significant ALP, GGT, ALT and GLOBE score improvement were observed during triple therapy. Adverse events were reported in 14.7% of patients (21.3% OCA, 17.6% fenofibrate, 10.7% bezafibrate). This was mainly pruritus (10.1% with OCA). Discontinuation was more frequent in fenofibrate treatment, mainly because of intolerance or adverse events.

It was concluded that second-line therapy with OCA or fibrates improved hepatic biochemistry and the GLOBE score in PBC patients with suboptimal response to USDA. Simultaneous treatment with OCA and fibrates improved ALP as well.


Statin Therapy for Prophylaxis of HCC in NASH with Cirrhosis

To estimate the annual incidence of hepatocellular carcinoma (HCC) in patients with nonalcoholic steatohepatitis (NASH) with advanced liver fibrosis, and to determine the risk factors for development of HCC and the chemoprotective effect of statin use stratified by fibrosis stage, a retrospective study was carried out at two U.S. tertiary academic centers, including patients with NASH-related advanced liver fibrosis (bridging fibrosis – F3 and cirrhosis – F4), followed between July 2002 and June 2016. Patients were followed from the day of diagnosis to the day of last abdominal imaging, liver transplantation or HCC diagnosis. Multivariable Cox regression analysis was performed to evaluate the risk factors associated with HCC development, stratified by fibrosis stage.

A total of 1072 patients were included; 122 patients with F3 fibrosis and 950 patients with cirrhosis. No HCC was observed during 602 person-year follow up among F3 patients. Among patients with cirrhosis, HCC developed in 82 patients with an annual incidence rate of 1.90 per 100 person-years. Multivariable analysis in patients with cirrhosis demonstrated that HCC development was associated with male sex (HR 4.06), older age (HR 1.05), and CTP score (HR 1.38). Statin use was associated with a lower risk of developing HCC (HR 0.40). Each 365 increment in cumulative defined daily dose of statin use reduced the HCC risk by 23.6%.

The findings suggested that patients with NASH and bridging fibrosis have a low risk of HCC. Dose-dependent statin use reduced HCC risk significantly in patients with NASH cirrhosis.


Treatment of Gastric Antral Vascular Ectasia

Gastric antral vascular ectasia (GAVE) is typically treated by endoscopic thermal therapies (“watermelon stomach”). Endoscopic band ligation (EBL) had been reported with encouraging results and a comprehensive search of several databases was conducted (inception to May 2021), to identify studies reporting the use of EBL in treatment of GAVE.

A random-effects model was used to calculate the pooled rates, I² values and 95% prediction intervals were calculated to assess the heterogeneity.

Ten studies (194 patients), were included in the final analysis. The pooled rate of treatment responders with EBL in GAVE was 81% and GAVE recurrence was 15.4%. The pooled mean number of treatment sessions required was 2.4 and the number of bands used to achieve eradication per patient was 15.1. The pooled mean difference of pre- to post-treatment hemoglobin was 1.5, pre- to post-treatment units of packed red cells transfused was 1.1, and pre- to post-treatment hospital length...
of stay was 0.5 days. The pooled rate of overall adverse effects was 15.9%.

It was concluded that EBL demonstrated excellent clinical outcomes in the treatment of GAVE with minimal adverse events. Multicenter randomized control trials comparing EBL and other modalities as initial therapy are warranted.


Proton Pump Inhibitor Therapy and Risk of All-Cause Mortality

To determine the association between proton pump inhibitors (PPIs) use and mortality was evaluated by a prospective analysis of 440,840 UK residents and 13,154 deaths. The evaluation was carried out to determine the associations with multivariate Cox regression.

After adjusting for confounders, such as health status and longstanding diseases, the regular use of PPIs was not associated with an increased risk of all-cause mortality and mortality due to neoplasms, circulatory system diseases, respiratory system diseases, digestive system diseases, external causes and other causes.

It was concluded that regular use of PPIs was not associated with increased risk of all-cause and cause-specific mortality.


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