Impact of Resmetirom on Health-Related Quality of Life, Work Productivity, and Disease-Specific Symptoms in Compensated MASH Cirrhosis

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BACKGROUND

- MASH is a progressive form of MASLD that can lead to cirrhosis and is associated with substantial clinical and humanistic burden.
- Patients with MASH cirrhosis experience substantial impairment in health-related quality of life (HRQL), including fatigue, sleep disturbance, cognitive symptoms, and emotional distress.
- While resmetirom, a selective thyroid hormone receptor-β (THR-β) agonist, has been shown to improve HRQL in non-cirrhotic MASH, its effects on HRQL, work productivity, and symptom burden in patients with compensated MASH cirrhosis remain less well characterized.

AIM

- This study evaluated the impact of resmetirom on HRQL and symptom burden in patients with well-compensated MASH cirrhosis.

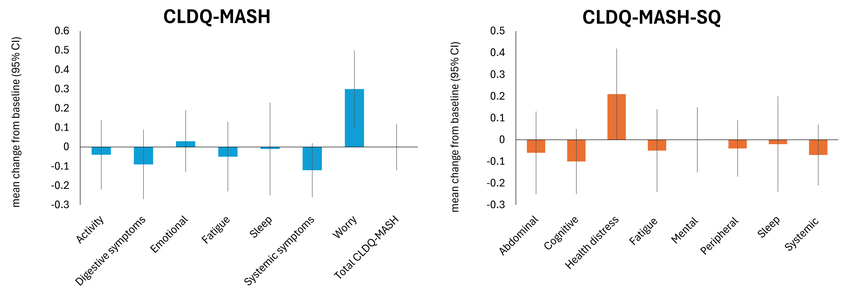
METHODS

- This post hoc analysis included 160 patients with well-compensated MASH cirrhosis from the MAESTRO-NAFLD-1 trial.
- Patients completed HRQL and symptom assessments using the Liver Disease Quality of Life (LDQoL), Chronic Liver Disease Questionnaire-MASH (CLDQ-MASH), CLDQ-MASH Symptom Questionnaire (CLDQ-MASH-SQ), and Work Productivity and Activity Impairment (WPAI) questionnaires.
- High risk of portal hypertension at baseline was defined using modified Baveno VII criteria as liver stiffness measurement (LSM) ≥25 kPa with ≥1 of the following: platelet count <150 10^9/L, magnetic resonance elastography ≥5 kPa, or ELF ≥11.3.
- Treatment response was defined as a ≥25% reduction in LSM by VCTE.

RESULTS

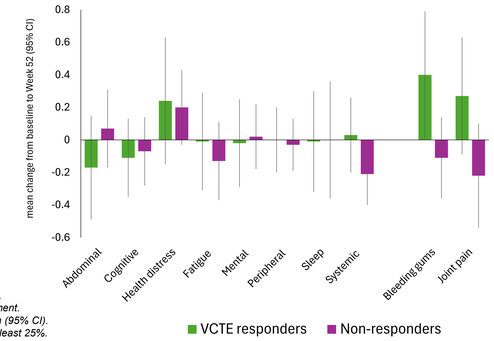
- At baseline, the greatest patient-reported burden was concentrated in sleep- and fatigue-related domains across the HRQL and symptom instruments (**Figure 1**).
- At the individual symptom level, fatigue, non-restorative sleep, daytime sleepiness, and joint pain were among the most commonly reported symptoms.
- After 52 weeks of resmetirom treatment, improvements were observed primarily in disease-related worry and health distress, suggesting benefit in the emotional burden associated with MASH cirrhosis (**Figure 2**).
- Most other HRQL and symptom domains remained relatively stable during treatment (p>0.05).
- VCTE responders demonstrated greater improvement in selected peripheral symptoms, including bleeding gums and joint pain, compared with non-responders (**Figure 3**).

Figure 2. Changes in HRQL and symptom scores in patients with MASH cirrhosis



RESULTS

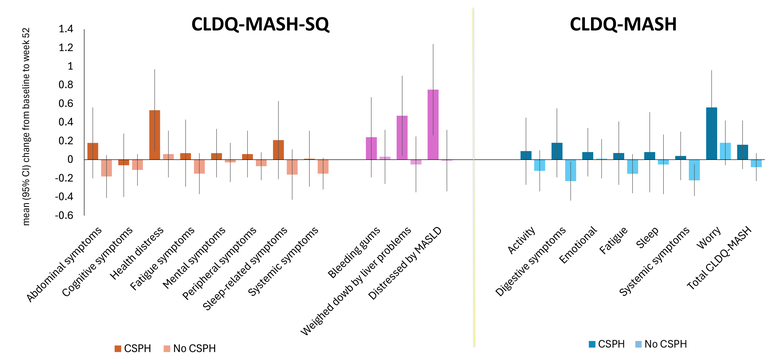
Figure 3. Changes in symptom scores in patients with MASH cirrhosis by the presence of VCTE response.



** The CLDQ-MASH-SQ domain and item scores range 1-7, lower score = worse symptom, positive change = improvement. The changes from baseline to week 52 are shown as mean (95% CI). VCTE response defined as a decrease from baseline of at least 25%.*

- Among patients with high risk of portal hypertension, improvements in disease-related worry and health distress were observed after 52 weeks of treatment (**Figure 4**).
- This subgroup also demonstrated improvement in feeling weighed down by liver problems and distress related to having MASH (**Figure 4**).

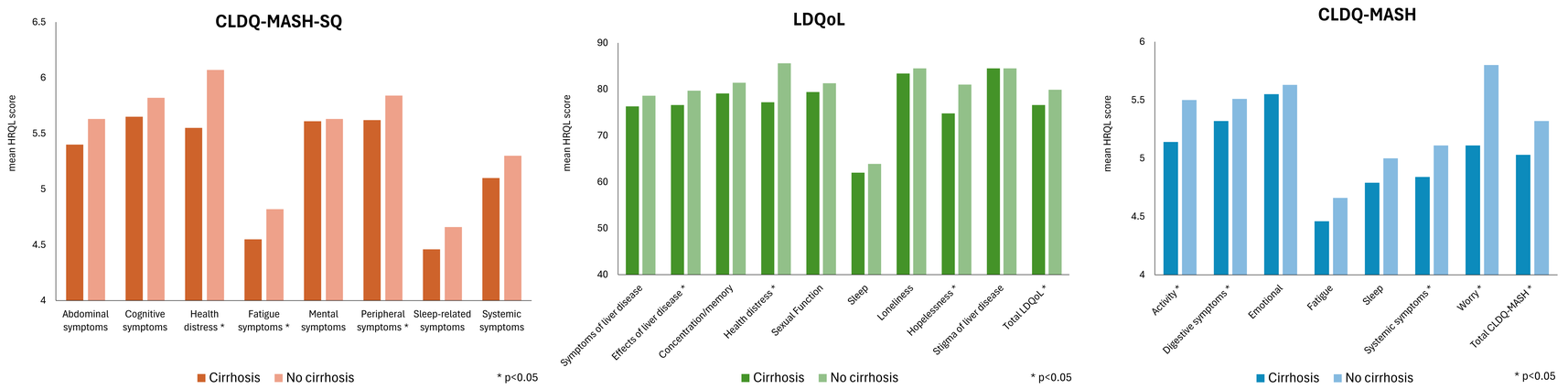
Figure 4. Changes in symptom and HRQL scores in patients with MASH cirrhosis by the presence of clinically significant portal hypertension .



** The CLDQ-MASH and CLDQ-MASH-SQ domain and item scores range 1-7, lower score = lower HRQL or worse symptom, positive change = improvement. The changes from baseline to week 52 are shown as mean (95% CI). Clinically significant portal hypertension (CSPH) defined as baseline LSM ≥25 kPa and any one of: platelet count <150 10^9/L or MRE ≥5 kPa or ELF ≥11.3.*

RESULTS

Figure 1. Baseline HRQL and symptom scores in patients with MASH by the presence of cirrhosis.



CONCLUSIONS

- **Cirrhosis in MASH is associated with significant HRQL impairment and substantial symptom burden.**
- **Resmetirom treatment in these patients was associated with modest but significant improvements in mental health distress and worry domains, as well as specific symptom relief.**

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