Poster #2066-A

LIVER STIFFNESS MEASUREMENTS WITH A NEW POINT-OF-CARE DEVICE, HEPATOSCOPE, USING TWO-DIMENSIONAL TRANSIENT ELASTOGRAPHY SHOWED GOOD CORRELATION TO OTHER NON-INVASIVE TESTS.

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BACKGROUND

- Non-invasive tests (NITs) are recommended for the **risk stratification** of patients at risk of Metabolic associated steatohepatitis (**MASH**)[1-3].
- Liver stiffness measurement (LSM) by ultrasound-based transient elastography (TE) is one of them.

OBJECTIVES

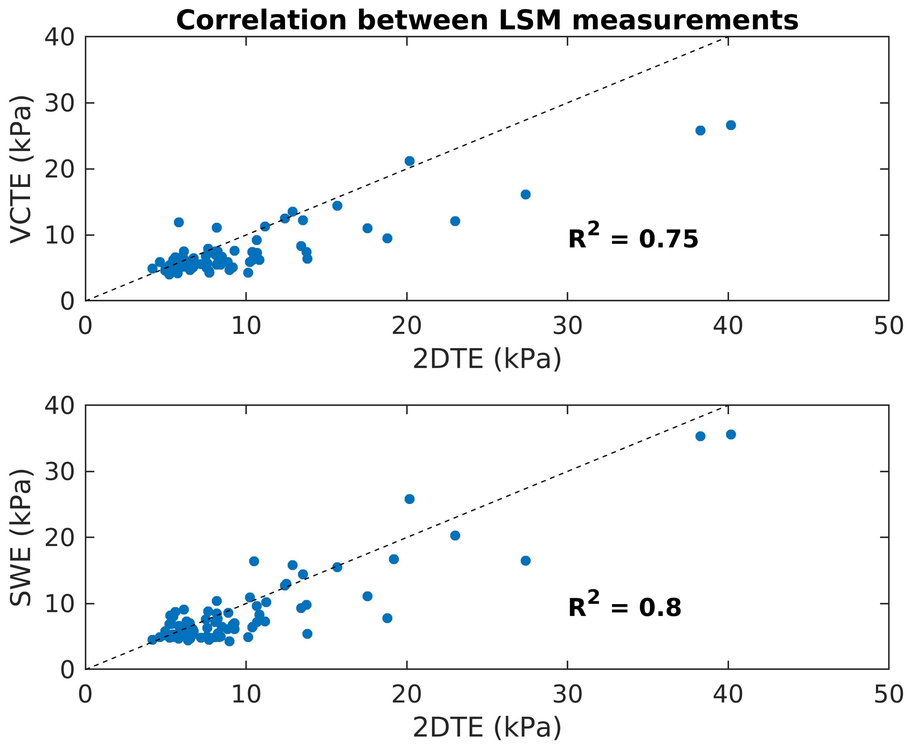
- To assess the **correlation between LSM** obtained with TE using 2D-measurements of shear wave speed (2DTE) on a new ultrasound imaging point-of-care device, Hepatoscope™, and other NITs, of which Fibroscan VCTE.

METHODS

- **Prospective** single center study (NCT04782050)
- 96 adult patients referred to routine outpatient hepatology consultation for CLD
- **1 expert and 1 novice operators**, blinded to any median value for each series of measurements
- Reproducibility assessed by Intraclass Correlation Coefficients (ICC) (results not reported here)
- NITs used for liver fibrosis assessment: LSM with VCTE, LSM with Aixplorer® ShearWave Elastography (SWE), FIB-4, APRI and NAFLD Fibrosis Score (NFS).
- **R^2 correlations** between non-invasive tests for steatosis.

RESULTS

- **All NITs** used for liver fibrosis assessment were **positively correlated** with each other.
- All correlations between **LSM** techniques were **strong**: r^2=0.79 (VCTE vs SWE), r^2=0.75 (VCTE vs 2DTE), and r^2=0.80 (2DTE vs SWE). (see figure below)
- Correlations between blood tests were weaker: r^2=0.49 (FIB-4 vs NFS), r^2=0.31 (FIB-4 vs APRI), and r^2=0.10 (APRI vs NFS).
- 2DTE correlated significantly better ($p<0.001$) with APRI (r^2=0.64) than VCTE (r^2=0.27) and SWE (r^2=0.33). FIB-4 correlated moderately with 2DTE and SWE (r^2=0.19), and better than with VCTE (r^2=0.12; $p=0.05$). NFS correlated weakly with 2DTE (r^2=0.08), and significantly better with VCTE (r^2=0.16) and SWE (r^2=0.21) ($p<0.01$).



CONCLUSION

- LSM performed with **2DTE strongly correlated** with other ultrasound-based LSM techniques (VCTE and SWE).
- Correlations between LSM by any technique and blood tests were found to be weak to good.
- 2DTE may be used at the bedside for large scale screening purposes.
- Future comparative studies against liver biopsy are needed to validate existing LSM cutoffs for the triage of patients at risk of fibrotic NASH.

REFERENCES

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