

# Shear-wave sono-elastography in the discrimination of hepatocellular carcinoma and dysplastic nodules in cirrhotic patients

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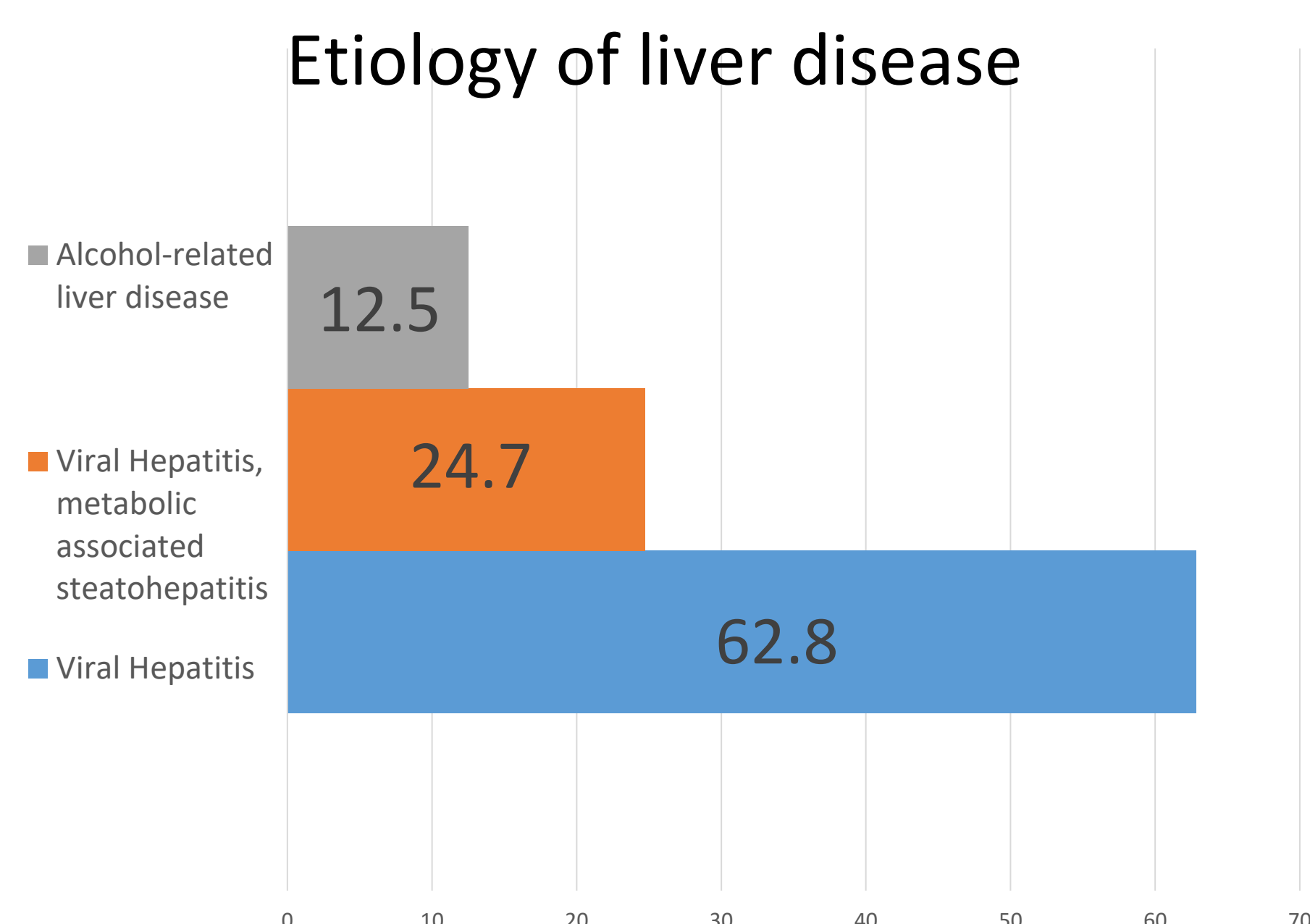
## Background & Aims:

- ❖ Early and accessible detection of hepatocellular carcinoma (HCC) is critical in cirrhotic patients, as it increases access to curative therapeutic means.
- ❖ Abdominal ultrasonography (US) → first imagistic line of screening (CT and MRI reserved for diagnostic confirmation).  
↳ difficult to discriminate between small neoplastic lesions and regeneration nodules, often co-existing in cirrhotic livers.
- ✓ The aim of this study is to evaluate the use of shear-wave sono-elastography (SWE) in HCC diagnosis and in differentiation of HCC and dysplastic nodules.

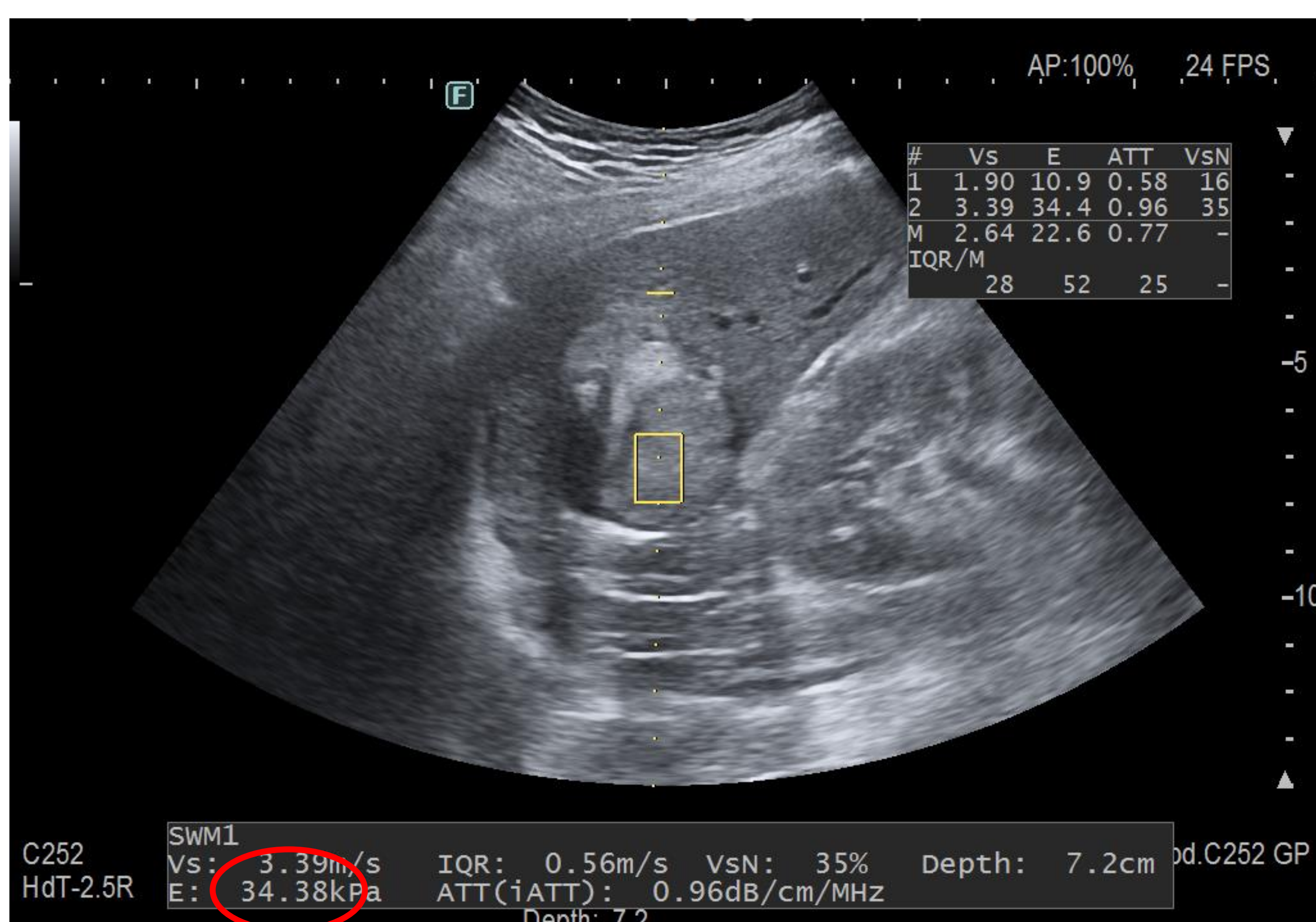
## Methods:

- SWE was performed using a color map of tissue stiffness (with blue indicating low stiffness values and red indicating increased stiffness).
- Patients underwent CT or MRI scan for diagnosis confirmation.

## Results:

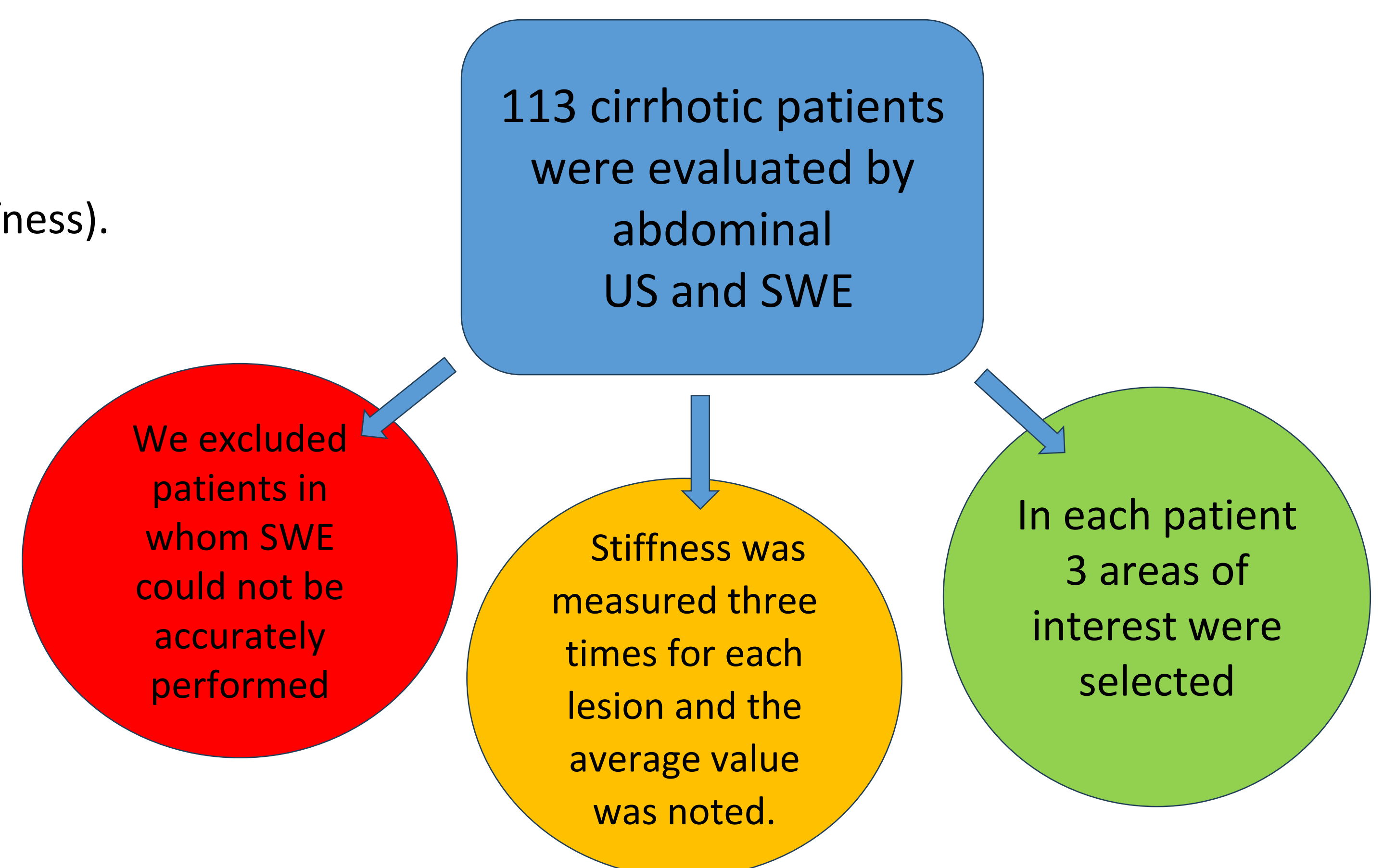


☐ Mean age in the study group was 57.32 +/- 24.81 years old, 60.2% male patients.

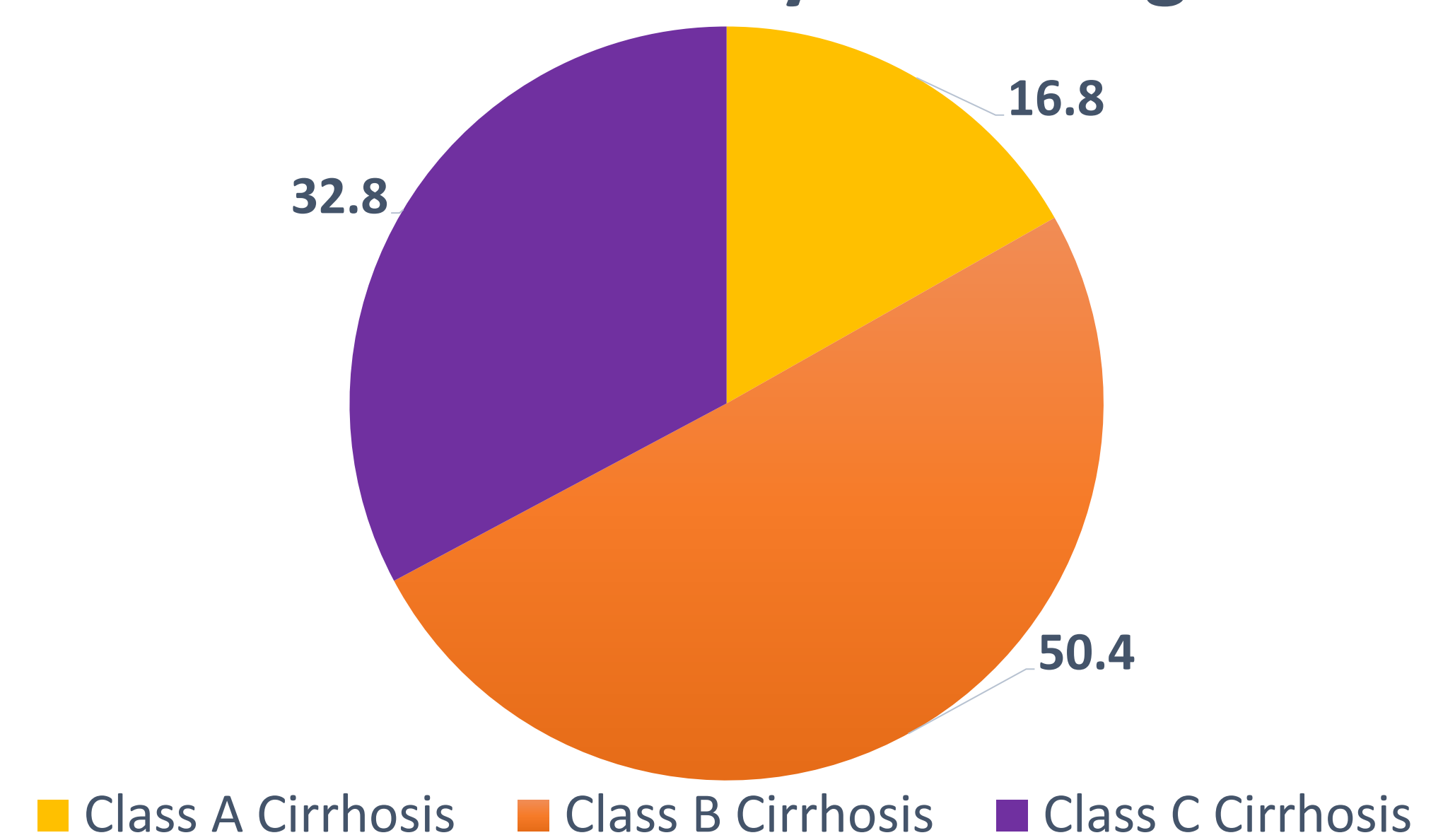


## Conclusions:

- Lesion stiffness may be helpful in distinguishing between malignant and benign liver lesions in cirrhotic patients, despite limitations regarding technical difficulties in obtaining accurate images.
- In selected cases, this additional step performed during ultrasonography may help prioritize patients for further abdominal imaging.



## Stratification by Child Pugh



- ☐ We found that HCC nodules had increased stiffness compared to dysplastic nodules in all Child classes, independent of etiology (22.15 KPa versus 14.78 Kpa, p< 0.001).
- ☐ Color coding did not prove useful in differentiating HCC, as all lesions appeared with mixed color- blue with red foci.