Ultrasound Clinical Case Study
Liver Cirrhosis

Background
A 52-year old male presented to the department with known cirrhosis due to longstanding Hepatitis C and known abdominal varices. The patient was not being treated or medicated for this condition and was to return to the referring physician to discuss management including possibility of transplant.

![Figure 1: Portal vein size is slightly enlarged suggesting portal vein hypertension. Blood flow direction in the portal vein is maintained. The liver surface appears nodular and liver echotexture is heterogeneous.](image1)

![Figure 2: An incidental finding of a gallbladder polyp measuring 4.3mm. Gallbladder wall size was normal at 2.2mm. The heterogeneity of the liver echotexture can be again appreciated in this image with nodularity of the liver.](image2)

![Figure 3: The spleen size was enlarged measuring 21.2mm with the presence of varices.](image3)

![Figure 4: Shear wave of the liver employed and gave a median of 2.66m/2 correlating to a Metavir score of F4 supporting the diagnosis of cirrhosis.](image4)

Conclusion
The Aplio i800 provides excellent contrast and spatial resolution for a more confident diagnosis of subtle echotexture changes in the liver. Small structures representing possible HCC can be visualised earlier resulting in quicker treatment. Further advances in beam formation technology allow superior penetration with ultimate clarity from superficial through to the deepest parts of these attenuating livers. Shearwave can help to quantify pathology present or not advanced enough to be seen on an ultrasound image. Canon Medical’s unique propagation maps help to maintain good quality control and reproducibility between successive studies. Superior image quality, excellent colour sensitivity and quicker workflow are three aspects that can help to reach a diagnosis accurately, confidently and quickly for better patient outcomes.

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