92 SPLEEN STIFFNESS IS LOWER WHEN MEASURED IN THE RIGHT LATERAL POSITION COMPARED TO THE SUPINE POSITION

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Introduction Spleen stiffness has been shown to correlate with hepatic venous pressure gradient and can predict oesophageal varices. At present, no valid criteria or standardized method for spleen stiffness measurement exist.

Aims/Background This study investigated the influence of different lying positions on spleen stiffness measurements.

Method Twelve spleen stiffness measurements were performed in 5 patients using Fibroscan® before and after liver transplantation. For spleen stiffness, ultrasonography was first used to confirm splenic position prior to elastography. Spleen stiffness was measured in the right lateral and supine positions. Criteria for valid liver stiffness [>10 successful measurements, interquartile range (IQR)<30%, success rate >60%] were applied to spleen stiffness.

Results Three spleen stiffness measurements were prior to liver transplantation and nine measurements were done at different

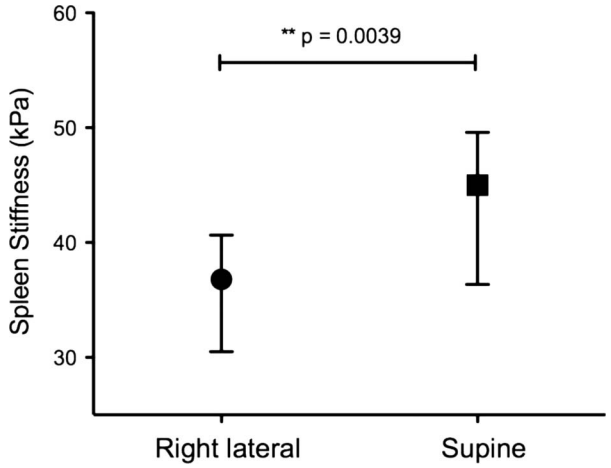

Figure 1 Spleen stiffnes measured in the right lateral decubitus versus the supine position.

time intervals after transplant. Prior to liver transplantation, all spleen stiffness measurements reached the maximum detection limit of the Fibroscan® and were excluded from analysis of different lying positions. Measuring spleen stiffness in the right lateral position yielded significantly lower stiffness compared to measurements in the supine position, with a median difference of 16.7% (IQR 14.6–23.7%) (n=9; p<0.01). When spleen stiffness measured in the right lateral decubitus was compared to the supine position, no significant differences were observed in IQR/Median [0.08 (0–0.19) versus 0.10 (0.04–0.19); p=0.76] or success rate (n=12; p=0.59).

Conclusion We showed that spleen stiffness measured in the right lateral position is significantly lower than measurements in the supine position. This may reflect a local reduction in splenic venous pressure in the right lateral decubitus position.