

**ECHO ROUNDS Section Editor: Edmund Kenneth Kerut, M.D.** \_\_\_\_\_

## Utility of Identification of the Falciform Ligament in the Echocardiography Laboratory

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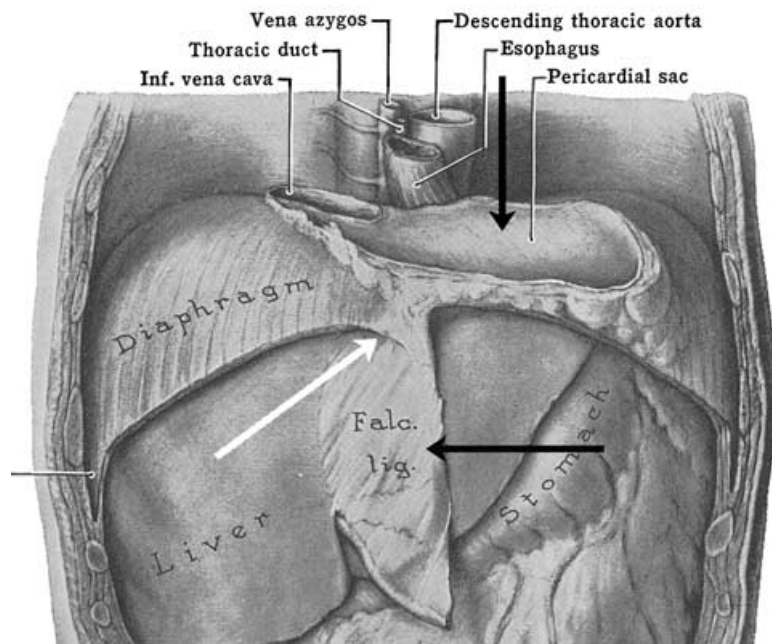
*falciform ligament, ascites, echocardiography*

The falciform ligament (FL: *ligamentum falciforme hepatic*) is a fold of peritoneum connecting the parietal peritoneum of the anterior abdominal wall with that of the visceral peritoneum over the anterior surface of the liver. The site of attachment to the anterior surface

of the liver denotes the junction of its right and left lobes.<sup>1,2</sup> Following the FL from the liver superiorly reveals it to end transversely into the abdominal surface of the diaphragm.<sup>3</sup> Anatomically, the diaphragmatic surface of the pericardium lies in close proximity to the FL (Fig. 1).

In the presence of ascites noted by echocardiography, the FL is usually noted within the ascites. Ascites is visualized from both parasternal and subcostal windows,<sup>5</sup> but the FL will be noted most often in the subcostal window only.

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**Figure 1.** The falciform ligament (*falc. lig.*: horizontal black arrow) connects the parietal peritoneum with the anterior surface of the liver. It obliquely attaches to the abdominal surface of the diaphragm (white arrow denotes attachment site). Note the close proximity of the falciform ligament with the diaphragmatic surface of the pericardium (pericardial sac: vertical black arrow). (Reproduced and modified with permission from Reference 4).



**Figure 2.** Subcostal long-axis view of a patient with dilation of the right heart and ascites. The FL (arrow) is noted within ascitic fluid. The finding of the FL helps one to not misidentify an unknown fluid collection. LA = left atrium; RA = right atrium; RV = right ventricle.

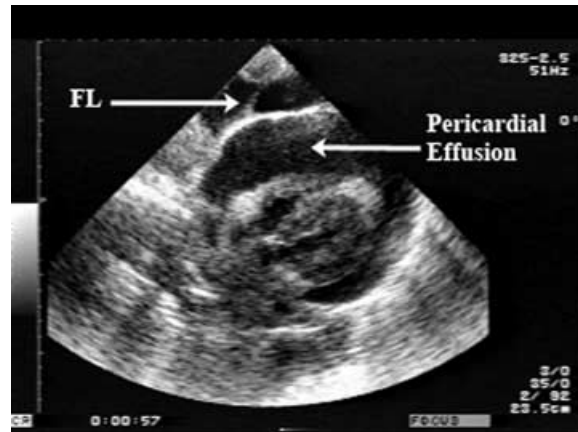
Having a typical concave band-like appearance (Figs. 2 and 3), the FL will usually undulate during real time imaging, due to transmitted heart motion with each cardiac cycle (Video Clips A and B).<sup>5-8</sup>

In one study, 32 consecutive patients with ascites were evaluated and in all 32 the FL was noted from a subcostal view.<sup>7</sup> Likewise, in our experience, when ascites is noted in a subcostal window, the FL will invariably be noted undulating within the ascitic fluid.

As ascites may be confused with other fluid collections (pleural fluid, pericardial fluid, pericardial cyst), noting the FL within ascites helps one make the correct diagnosis.<sup>5-7</sup>

## References

1. Tobin CE: *Shearer's Manual of Human Dissection, 5th Ed.* New York, McGraw-Hill Book Company, 1967,132.



**Figure 3.** Subcostal long-axis view of a patient with a large pericardial effusion and also ascites. Within the ascites is noted the FL.

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## Supplementary Material

The following supplementary material is available for this article online:

**Video Clip A:** A patient with ascites. Note the undulating motion of the FL.

**Video Clip B:** The same patient as in Figure 3. Note the undulating motion of the FL. FL: falciform ligament.