Virtual endoscopy in abdominal MR imaging

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As illustrated in this review, the diagnostic utility of VIE is highly dependent on the individual application. Virtual intraluminal endoscopy does not alter the informational content of the data set; rather, the data is presented in a different manner. In view of the considerable time requirements still associated with the VIE rendering process, the additional diagnostic value gained by VIE must be determined for each of the potential applications. Thus VIE was shown to be of no additional value in the assessment of 3D MR angiographic data sets of the abdominal aorta and renal arteries. For MR colonography, on the other hand, in vitro experiments as well as in vivo experience have demonstrated a vast diagnostic value as a primary screen supplemented by detailed analysis of reformatted images in all three orthogonal axes. In summary, virtual intraluminal imaging is a powerful tool for exploring 3D MR data sets of various abdominal structures from a different perspective. Clearly much more work is required to determine its diagnostic utility relative to its cost.