

Endoscopy for the Interventional Radiologist: An Introduction



Interventional Radiology is a specialty rooted in innovation. From the development of the Seldinger technique by Dr Sven-Ivar Seldinger in 1953 to the targeted locoregional oncologic interventions performed routinely today, Interventional Radiology provides therapy to patients in near-hopeless clinical scenarios by using revolutionary techniques when mainstay therapies have failed.¹⁻³ Among these techniques is endoscopy as an adjunct to image-guided interventions.⁴

Interventional Radiology-operated endoscopy is a rediscovered frontier gaining momentum within the Interventional Radiology community. Yamakawa *et al* performed the earliest documented case of Interventional Radiology-Operated endoscopy in 1976 for the treatment of choledocholithiasis.⁵ Over the years, endoscopy has been successfully employed in treating a variety of biliary diseases, including intra- and extrahepatic biliary lithiasis, secondary to benign and malignant biliary ductal strictures.^{5,6-8}

The interest and implementation of Interventional Radiology-operated endoscopy seemed to plateau until the late 2000s. Now; however, its resurgence is evidenced by the number of recent publications, presentations, workshops, and numerous posts on social media platforms displaying its diagnostic and therapeutic benefits.^{4,9-16} While biliary endoscopy has been the most thoroughly investigated use of this modality, exploration of its therapeutic potential in other systems is just beginning – notably in the gastrointestinal and genitourinary systems.¹⁰⁻¹⁴

Interventional Radiology-operated endoscopy is a complex technique and thus there are a variety of challenges to overcome on initial adoption. Firstly, a thorough understanding of the equipment is paramount; selection of the optimal endoscope given a particular clinical situation may be the difference in therapeutic benefit vs detriment. Traditional apprenticeships and training seminars combined with novel three-dimensionally-printed and homemade models may teach physicians how to master Interventional Radiology-operated endoscopy.¹⁷ One must also thoroughly understand the fiscal implications of Interventional Radiology-implemented endoscopy, including billing, coding, and credentialing.⁹ With the development of cost effective disposable endoscopes, some economic barriers hindering the utilization of endoscopy have been minimized. Finally,

collaborative efforts with other specialties and administrators are key; without a shared vision and strong knowledge of Interventional Radiology-operated endoscopy amongst all invested groups, the integration of endoscopy into an Interventional Radiology practice may be challenging.^{9,18}

In this issue of *Techniques in Vascular and Interventional Radiology*, the authors aim to provide foundational knowledge to those interested in adopting Interventional Radiology-operated endoscopy while simultaneously displaying its feasibility and therapeutic benefit in patient care.

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