



## Introduction to the special section on pancreatitis

Atif Zaheer<sup>1</sup>

Published online: 9 April 2020

© Springer Science+Business Media, LLC, part of Springer Nature 2020

The pancreas is an essential organ that can unfortunately be afflicted by a myriad of diseases. Although pancreatic cancer dominates the academic and clinical discussions on imaging, a deep understanding of the inflammatory diseases of the pancreas is important not only to guide management but also to differentiate neoplasia from inflammatory disorders. Imaging plays a critical role in the diagnosis and management of patients with acute and chronic pancreatitis, and serves as an important tool in the armamentarium of all gastrointestinal-related specialties including gastroenterology and abdominal surgery.

It is an honor and a privilege to serve as the guest editor for this special issue on pancreatitis. A broad range of subjects on both acute and chronic pancreatitis are extensively covered in this issue with contributions by leading experts involved with research and education in the field. The first part of the issue is dedicated to acute pancreatitis, and topics related to nomenclature based on the revised Atlanta classification, utility of CT, MRI, and US along with their indications, judicious use, and the economic consequences are discussed. Furthermore, indications, techniques, and outcomes of endoscopic interventions for the management of the disease are also given special attention. This issue also includes a white paper on structured reporting based on the recommendations by the Disease Focus Panel (DFP) of the Society of Abdominal Radiology (SAR). Finally, emerging imaging techniques, such as radiomics, T1/T2 mapping, cinematic rendering, and artificial neural networks, that offer additional classification and prognostication of acute pancreatitis are discussed.

Similarly, the second part of the issue is focussed on chronic pancreatitis and articles on overview of optimum

modalities, approaches, and techniques along with promising new methods that may extend the current capabilities of conventional imaging such as MR T1 mapping, elastography, fat quantification, dual energy and perfusion CT, radiomics, and artificial intelligence are discussed. Surgical and endoscopic options are explained with illustrations for a better understanding and accurate reporting of post-treatment changes on imaging. Inflammatory mimickers including groove pancreatitis and autoimmune pancreatitis are given special consideration in an effort to help distinguish these entities from pancreatic ductal adenocarcinoma. Furthermore, an article dedicated solely to discuss the development and organization of a multidisciplinary collaboration including multidisciplinary meetings, clinics, and expert panels within institutions for the management of acute and chronic pancreatitis as it impacts clinical outcomes is included.

This effort would not have been possible without the knowledge, time, and expertise of all the members of the SAR DFP on pancreatitis and the contributing authors. We have made every effort to provide as broad a perspective by including opinions and contributions of experts from a wide range of different academic institutions. A special thanks to Dr. Daniel Johnson, the Editor-in-Chief, for this opportunity and for the guidance throughout the process. We hope that this special issue on pancreatitis provides a valuable reference to general radiologists as well as radiologists specializing in pancreatic imaging.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

---

✉ Atif Zaheer  
azaheer1@jhmi.edu

<sup>1</sup> The Russell H. Morgan Department of Radiology and Radiological Science, School of Medicine, Johns Hopkins University, JHOC 3235 A, 601 N. Caroline Street, Baltimore, MD 21287, USA