Editors' Introduction to the Chronic Pancreatitis and Pancreatic Cysts Special Issue

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We are pleased to introduce the third annual special supplement to *Digestive Diseases and Sciences* dedicated to Emmet B. Keefe, an endeavor not only intellectually but also personally satisfying since both of us have had the distinct privilege of working with Emmet as trainees at Stanford.

This year's supplement focuses on chronic pancreatitis and pancreatic cysts, a focus chosen among the spectrum of pancreatic disorders, due to the increasing recent interest in these lesions by the gastroenterological (GI) community. While there are unique and intriguing aspects to each condition, both are recognized risk factors for the development of pancreatic adenocarcinoma. Recognition of this risk by the National Institutes of Health was rewarded by a surge of targeted funding through the formation of two separate multicenter consortia: an NCI/NIDDK-sponsored consortium for the study of Chronic Pancreatitis, Diabetes and Pancreas cancer, and an NCI-sponsored consortium for the early detection of pancreatic cancer (Pancreatic Cancer Detection Consortium). Through these consortia and other funding sources from foundations with similar missions, the GI community can expect new observations and data that will significantly advance the understanding of the pathogenesis of these conditions. The goal of this supplement thus is to both provide a framework of our current conceptions of these diseases and subsequently identify key gap areas where further anticipated research will provide answers to key questions.

Chronic Pancreatitis

For many practicing clinicians, chronic pancreatitis remains an enigma. It is difficult to diagnose early, its etiology is uncertain in many cases, and it has few effective treatment options. In recent years, however, methodological advances in the fields of epidemiology, genetics, and immunology have enabled significant progress in identifying new risk factors, and in assessing the contributions of genetic mutations and the immune system toward disease progression. These concepts are summarized in the first part of this section. In turn, these novel observations provide new insights and hope for innovative treatments for associated pain and for halting (or even reversing) the associated fibrosis and subsequent endocrine and exocrine complications. The second part of this section summarizes the current status of medical, endoscopic, and surgical interventions that provide a comprehensive set of treatment options extending beyond simple pain management. This section also focuses on the popular topic of autoimmune pancreatitis, summarizing appropriate diagnostic and management options, concluding by highlighting advanced complications of chronic pancreatitis and how they are best managed. It also highlights the overriding importance of having available a multi-disciplinary approach to providing patient-centered chronic pancreatitis care.

Pancreatic Cysts

Pancreatic cysts are arguably the most discussed “incidentaloma” in digestive diseases today. With progressive improvements in cross-sectional imaging resolution along with the increased use of advanced imaging in diagnostic evaluations, incidental pancreatic cysts have been

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increasingly identified in the general population, with their prevalence increasing with age. Unlike the simpler liver or kidney cyst, many of these are biologically precancerous lesions including intraductal papillary mucinous neoplasms and mucinous cystic neoplasms. While they cannot be ignored, most are indolent, slowly progressive lesions of which only a very small subset will progress to cancer during the patient's lifetime. Existing diagnostic imaging modalities and clinical algorithms are, in fact, fairly good at diagnosing the presence of cancer. Recent guidelines and their limitations are also summarized, and current treatment approaches are discussed. Despite the availability of these guidelines, improvements are required in order to more accurately predict cancer progression, as the few tools currently available are inadequate. In this section, what is known of the natural history of pancreatic cysts is summarized, followed by the current understanding of the pathophysiology of cysts from dysplastic to malignant

status. There has been a subsequent explosion of interest in novel cyst-based and serum biomarkers, which are discussed in detail. Finally, this section concludes by summarizing the numerous available endoscopic and surgical treatment approaches. Like chronic pancreatitis, a successful research and clinical program focused on the diagnosis and treatment of pancreatic cysts requires a multi-disciplinary collaborative effort.

Final Comments

We hope you find this issue as timely and comprehensive as we did. This would not be possible without the generosity of time and thought by our contributing authors who kindly agreed to participate in this special issue. We would also like to thank Meghan Keeffe, the Managing Editor of DDS, for helping us get this issue over the finish line.