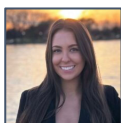


“Eat When You Can, Sleep When You Can, and Don’t Mess With the Pancreas”...Unless You Have To A Review of Pancreatic Trauma

Taylor Kowansky¹

¹ Research Associate Program in Emergency Medicine and Critical Care, University of Maryland School of Medicine, Baltimore, MD, United States

AUTHOR



Taylor Kowansky

University of Maryland Medical Center, United States

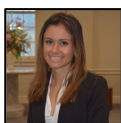
EDITED BY



Nikki Emamian

University of Maryland Medical Center, United States

REVIEWED BY



Nikki Emamian

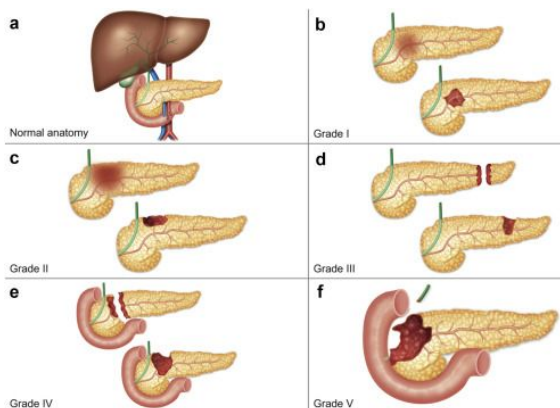
University of Maryland Medical Center, United States

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1. INTRODUCTION

The pancreas is an essential organ that produces digestive juices and hormones. Pancreatic trauma is rare due to its retroperitoneal anatomy that serves as protection, however this injury does still occur and is associated with high mortality.¹ The challenge of diagnosing pancreatic trauma plays a significant role in the high mortality rate. Patients seldom present with isolated pancreatic injuries and are often accompanied by multi-organ trauma, which can distract from making the diagnosis. Singh et al. examined various severities of pancreatic injuries, their presentations, treatment plans, and outcomes with the purpose of highlighting key pearls which are indicative of pancreatic trauma.¹ Useful information to consider when reviewing the findings of the study is the grading of the pancreatic trauma and healthy levels of serum amylase and serum lipase. The American Surgical Association divides pancreatic trauma into 4 grades, beginning with grade I as the least severe and escalating up to grade V.²



Organ Injury Scale for Pancreatic Injury Severity²

2. PRIMARY FINDINGS

Singh et al. enrolled 40 patients with pancreatic injuries in their study. Motor vehicle accidents were found to be the common etiology of the injuries, at 80%.¹ Every grade of pancreatic trauma was included in the study with Grades III and IV being the most common, at 65%.¹ Rise in serum amylase and lipase levels were present in 95-97% of admitted patients who had sustained their injuries at least six hours prior.¹ The same rise in levels were not seen in patients admitted prior, although these patients still had pancreatic injuries.¹ Imaging such as dry and wet CT scans, ultrasounds, and advance X-rays were used to assess patients.¹ The CT scans with contrast and a focused abdominal sonography for trauma provided the most use in the determination of pancreatic trauma and the varying grade of damage. Isolated pancreatic trauma was found in only 10% of patients.¹ Of these patients, a majority had co-injured organs, with the most common being liver and splenic injuries.¹ Treatments varied depending on grade of injury.¹ Interventions used included distal pancreatectomy and splenectomy, peritoneal drainage, suturing of the bleeding vessel, pancreaticoduodenectomy, and sphincterotomy with stenting.¹

3. HOW THIS IMPACTS PATIENT CARE

Early diagnosis and treatment of pancreatic injuries are essential factors of patient survival. A wet CT is the most sensitive test for pancreatic injury and can be used for patients who have endured blunt force abdominal injuries. Providers should be aware that serum lipase and enzyme levels may be normal after initial trauma but should not be used to rule out pancreatic injury, as these levels often change hours after injury. Pancreatic injuries at a Grade III or higher experience greater outcomes with surgical interventions, whereas Grade I and II injuries can be managed more conservatively.¹

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ABOUT THE AUTHOR



Taylor Kowansky
Social Media Manager
Archives Committee Writer
CCRU Charge Log Project Lead
Major in Kinesiology
University of Maryland, College Park '23
Pre-Professional Track: MD

Taylor is a senior at the University of Maryland. After graduating, she plans to continue to work in an Emergency Department as an ER Tech and a volunteer EMT while she completes a post baccalaureate program. Taylor has recently completed statistical analysis training with the program, which she looks forward to utilizing for future projects.