

Potential measures to decrease dosing calculation errors and ensure dosing accuracy include:

- pharmacist to double check all IV medication order dosages prior to administration
- protective feedback system in the electronic health record to automatically alert providers when ordered medication dosing deviates from recommended
- verbal confirmation of accuracy in resident ordered IV medication dosing between nurse and attending physician prior to administration.

Our ED has since converted to an electronic medical record program which prompts the provider with an automatic query whenever medication dosing ordered falls outside the recommended range.

Our data shows that 1 in 5 IV medication orders placed by EM residents caring for children deviates by >10% of recommended dosing. Pediatric emergency departments with EM resident training programs should be particularly cognizant of the potential for medication dosing errors, and promote oversight measures to decrease risk for miscalculation.

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A novel method of palpating the pancreas in children: Three cases of pediatric acute pancreatitis



Acute pancreatitis (AP) is a critical inflammatory process of the pancreas caused by the activation of pancreatic zymogens and resulting in pancreatic autodigestion and tissue damage [1,2]. While the mortality rate is high at 9.7%, diagnosing pediatric AP is still challenging due to the non-specificity of its clinical manifestations in children [3–5]. Therefore, a physical examination is clinically important for diagnosing this disease. Previous studies have demonstrated effective physical examination procedures in adults. Grott et al. proposed a special procedure for enhancing the accuracy of AP diagnosis in which the patient lies in the supine position with legs drawn up, with a fist placed under the lumbar vertebrae [6]. The physician then places one hand atop the other, moving them along the left side of the straight muscle of the abdomen, then from the periphery to the center of the abdomen. Kouyama proposed applying pressure over the left subcostal area along the

left side of the straight muscle of the abdomen toward the vertebrae [7]. However, applying pressure in this way in pediatric patients has limited efficacy as the straight muscle of the abdomen is not clearly visible in children. The Desjardins point, defined as a “point on the abdomen 5 to 7 cm from the umbilicus on a line joining it to the right axilla (lying) over the head of the pancreas,” may be useful, but there is no evidence as yet on its value for diagnosing AP [8]. Therefore, we developed Ihara's maneuver, a new maneuver for palpating the pancreas in children. In this maneuver (Fig. 1), a physician places his/her hand at the midpoint between the xiphoid process and umbilicus on the midclavicular line, then applies gentle pressure vertically, gradually increasing the pressure while moving the hands toward the spine to achieve deeper palpation. This maneuver allows the physician to apply manual pressure directly on the pancreatic body by displacing the stomach from the pancreas. Herein, we present three pediatric cases of AP diagnosed using Ihara's maneuver.

1. Case 1

A 13-year-old male with a past medical history of AP visited our Emergency Department (ED) due to epigastric pain. His vital signs were normal for his age. On physical examination using Ihara's maneuver, there was tenderness but no peritoneal signs. The serum lipase level (219 U/L) was elevated, and abdominal CT found

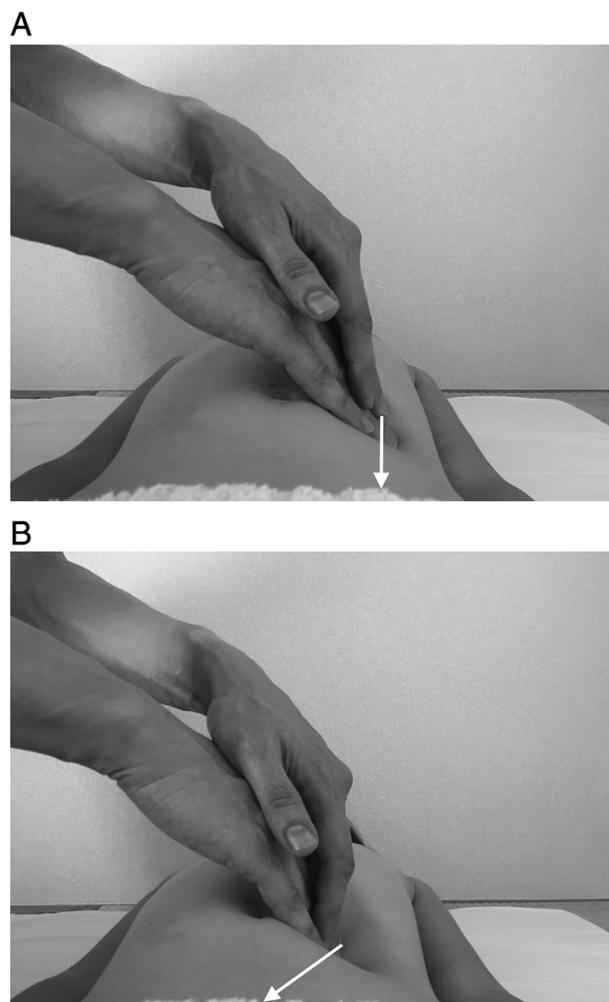


Fig. 1. How to apply pressure to the abdomen in Ihara's maneuver. Apply slight pressure vertically to the point shown on the patient's back (a), then increase the pressure while moving the hands toward the patient's spine to achieve deeper palpation (b).

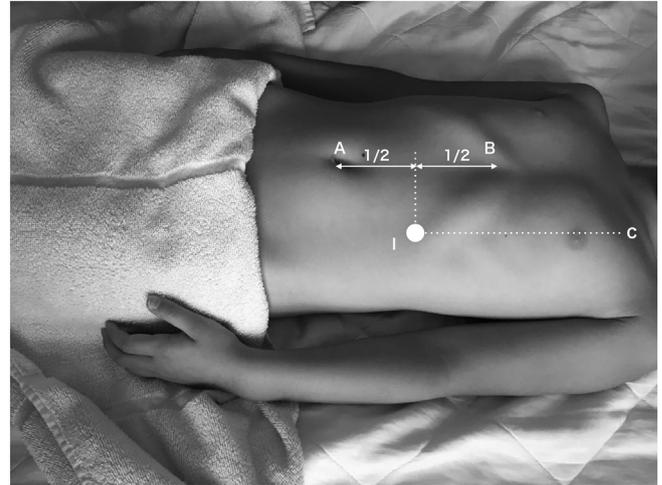
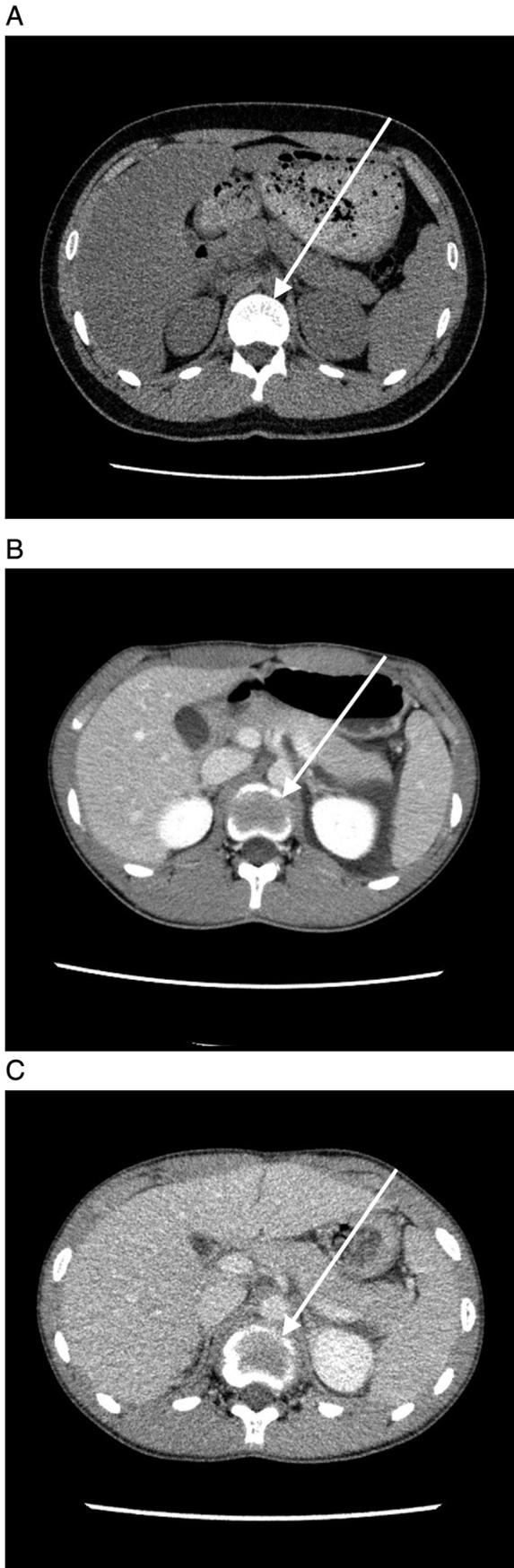


Fig. 3. Anatomic benchmarks in Ihara's maneuver. The pressure point in Ihara's maneuver (I) is located at the midpoint between the umbilicus (A) and xiphoid process (B) on the midclavicular line (C).

mild edema without ascites in the pancreas (Fig. 2a). Mild AP was diagnosed according to the pediatric classification of acute pancreatitis [9].

2. Case 2

An otherwise healthy, 13-year-old male visited our ED complaining of left upper quadrant pain. His vital signs were normal, but we found tenderness and defense on using Ihara's maneuver. A large peripancreatic fluid collection was found on abdominal CT (Fig. 3b), and his serum lipase was elevated (173 U/L). Moderately severe AP was diagnosed [9].

3. Case 3

An otherwise healthy, 13-year-old male was brought to our ED with the complaint of pain in the left upper quadrant. Both tenderness and rebound tenderness were noted on using Ihara's maneuver. The serum amylase (296 U/L) and lipase (889 U/L) levels were elevated, and abdominal CT showed a diffusely enlarged pancreas and peripancreatic fluid collection (Fig. 2c). Moderately severe AP was diagnosed [9].

We reported three cases of AP diagnosed by using Ihara's maneuver, a novel physical examination of the pancreas which can greatly aid in the early diagnosis and intervention in AP. Among the three cases, two were moderately severe and one was mild [9]. Thus, this maneuver can be consistently effective in detecting a wide range of severity in AP.

Abdominal pain is a common complaint in the pediatric ED, and deciding which patient with abdominal pain requires further testing is important [10–12]. In this context, Ihara's maneuver can determine the pretest probability of AP in pediatric patients, potentially enabling pediatricians to recognize the early stage of the disease and to identify patients who need further testing for a definitive diagnosis.

Since the pancreas is a retroperitoneal organ situated beneath the stomach, palpation of the pancreatic body is challenging. Our maneuver can be performed while the patient is supine, the most

Fig. 2. a. Abdominal CT scan in Case 1. Mild edema was observed in the pancreas. b. Abdominal CT scan in Case 2. Fluid collection surrounding the pancreas was observed. c. Abdominal CT scan in Case 3. Diffusely enlarged pancreatic body surrounded by fluid was observed. Axial CT scan shows the direction of the pressure (indicated by the arrow transecting the pancreatic body) applied in Ihara's maneuver.

common and comfortable position for pediatric patients. In the present cases, the CT findings demonstrated that the pressure point in Ihara's maneuver (midway between the xiphoid process and umbilicus) corresponded to the vertebral level of the pancreas (Fig. 2). The approach from the midclavicular line toward the spine allows us to avoid interference of the stomach body and to apply pressure by holding the pancreatic body between the physician's hand and vertebral body of the patient (Fig. 3).

There are several limitations to this study. The fact that the demographics of all the cases happened to be very similar may limit the generalizability of our findings.

In summary, we reported a novel method of pancreas palpation in children which may aid in the early diagnosis of pediatric AP.

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A physician's (and private citizen's) right to privacy against internet data brokers: Maintaining safety in an unsafe profession



As an EM physician of 20 years, I have never felt as threatened by anything as I have by opportunists of the insidious electronic information superhighway. Looking back, I have had my life threatened multiple times. I have been told by a patient that he was going to get his gun and return to shoot me. I have been called every derogatory name that someone could come up with directed at people of Asian descent. I have had to jump out of the way of patients who were trying to assault me. I have had to hide out of sight from angry patients who threatened me with physical harm. And I have been hit, spat at and kicked while at work.

When I have called police to report threats to my life, my concerns have been belittled and discounted by police. Once I was told that I was being too sensitive and that the man who had threatened to shoot me with a gun was just drunk and didn't mean anything by his threat. I wondered how this same complaint would have been handled were it directed at another police officer or someone who was white.

Just being an ED physician puts me in harm's way. I regularly deal with psychotic patients, drug dependent individuals demanding narcotics, intoxicated people and anyone who is dumped in the ED by local law enforcement because having to choose between being taken to jail or dropped at the ED and released without charge is an easy choice. I deal with gang-related shootings, gang-related retaliations and people that are unstable or at their emotional lows. Being a minority adds another layer of risk, especially in my experience in rural settings where people are not used to dealing with people who are different.

I fully admit that I agreed to the job risks when I chose EM as my specialty. However, when I see all of my personal information appear on multiple websites, I am alarmed (Table 1). I never agreed to allow random individuals access to my phone number, home address, my relatives' names or my DEA number.

I am acutely aware of news reports of physicians who are killed by patients [1,2] as well as workplace violence in healthcare settings [3–5]. I feel particularly vulnerable working in an ED setting where violence is prevalent [6]. However, a recent case that caught my attention was a man who was driving from southern to northern California intending to kill three physicians [7]. He had two loaded guns as well as the home addresses of the doctors. While he was caught before his plan could be enacted, I surmised he must have obtained the doctors' home addresses from Internet data broker sites.

Data brokers allege that their data are pulled from public records and are therefore fair game to post. Instead they pool data from multiple sources (federal, state, local), collating court records, job information, real estate transactions, social media sites, links to family and friends, criminal records and financial information. (In my recent search, I was notified that I had "multiple criminal records," which I do not.) The information suspect or not is then combined into a single report. While they argue that the results are merely public records, I cannot believe that the public information was ever meant to be accessed in aggregate to potentially do harm to others merely because it can be co-located, given or sold outright to anyone who wanted it. Nor can I believe that the policy intent of the data was to facilitate en masse distribution.

Not surprisingly, the Internet offers some seemingly easy ways to mitigate the privacy intrusions. I could pay some of these websites directly to hide or remove my information (one website charged \$300). Or I could pay other websites that specialize in getting personal information removed. But why should I have to pay anyone to remove information that I did not expressly consent to have placed in the public domain? Let's face it. The world is an