

Module 2: Updates in Pancreatic Diseases

Dr. Husain

Question 1.

Can you comment on difference between Elastase-1 and polyclonal elastase especially as relates to patients on PERT.

Answer: Monoclonal is specific for human. Polyclonal will pick up porcine elastase therefore affected by oral PERT.

Question 2.

Does PI have scales of severity : mild, moderate and severe? How to classify?

Answer: Severe: abnormal fecal fat only

Severe to possibly moderate: normal fecal fat but abnormal stool elastase

Moderate to possibly mild: normal values from the above tests but abnormal ePFT or Dreiling tube (triple lumen stimulation testing)

Question 3.

Value of secretin vs. CCK vs. Secretin plus CCK stimulation with pancreatic stimulation testing?

Answer: Ideal for test of acinar and ductal function would be to use both CCK and secretin, respectively, in combination. Most practitioners, based on the difficulty of the time it takes to induce CCK-stimulated secretions and their viscous nature, will use secretin stimulation only, even for acinar function. The caveat is that this schema will only induce pancreatic secretions, so that a sample can be taken for pancreatic enzyme activity. But note that this only tells you about constitutive enzyme secretion from the acinar cell, since you really haven't induced acinar enzyme secretion. The latter may still yield information about low baseline enzyme secretion. The tests need further validation with proper protocols and standards.

Dr Schwarzenberg

Question 1.

For the 15 % of newborns with CF who are pancreatic sufficient , is there an adverse outcome in treating them with enzymes? Should we screen newborns with CF for PI before starting enzymes/Is there a way to predict which pancreatic sufficient patients will go on to become pancreatic insufficient?

Answer: All children identified with CF should have FE-1 testing at the first visit(which should occur within 48 hours of diagnosis) . We put our patients on enzyme therapy and stop it if the FE-1 is normal(to prevent a week of malnutrition).

Pancreatic sufficient patients should have yearly FE-1 testing. Patients who are genetically suggestive of PI should be tested every 4 to 6 months, as they will be PI before 1 year of age. Many PS patients become PI due to pancreatitis or progression of pancreas damage.

Question 2.

What are your thoughts on the use of TPN as aggressive nutritional therapy during hospitalizations for pulmonary exacerbations in CF patients?

Answer: In the majority of cases, the gut can be used with NG, NJ or G tube feeds. PN increases risk of infection and should be used as the last resort when the gut cannot be used. I might use it in a patient I was trying to get to lung transplant by improving weight gain.

Question 3.

How do you provide PERT to infants, especially those that are breast feeding?

Answer: Well the real answer is that I ask the CF dietician to do it! We open the capsules, put the beads on a small spoon of applesauce feed, then give an ounce of breast milk by bottle to clean out the mouth(and protect mom's nipples).

Question 4.

How do you handle PERT in tube fed kids requiring continuous night time feeds. Some recent data out of Australia suggests adding enzymes in the bag as opposed to waking up in the middle of the night to give the enzymes, your thoughts?

Answer: For GT feeds we add Viokase to the bag, and usually use a predigested formula. This allows us to let the children sleep through the night.

Dr. Aliye Uc

Question 1.

Is there any role in keeping patient on low fat diet with recurrent pancreatitis?

Answer: There is no data. I usually tell patients that if they think this a trigger, they should avoid it!

Question 2.

In acute pancreatitis: When is the best time to start NG feeds in severe or moderate pancreatitis. Any scoring criteria that can be used?

Answer: I would still advocate oral feeds if possible. If tube feeds are started I would monitor abdominal pain. If patient has severe pancreatitis and is unable to tolerate any enteral feeds, consider TPN.

Question 3.

Can you tell us more about the “drug” you mentioned which may be helpful in acute pancreatitis?

Answer: The “drug” is lactated ringer. LR worked better in reducing inflammatory markers compared to normal saline in adults with acute pancreatitis (1 randomized study).