

“Live Healthy and Be Well”

Toward a More Adorable Pancreas!

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“I'm tired of all this nonsense about beauty being skin deep. That's deep enough. What do you want, an adorable pancreas?” -- Jean Kerr

This month we will talk a bit about one of the less glamorous and possibly understated organs of the body, the pancreas. I also want to touch on three of the most common disorders of the pancreas so that you will know a little more about that. Most of the time, if all is well, you will never even know your pancreas is there, but it's those times that you might feel it or know it that we want to discuss and provide some more information. Also, we'll touch on the wellness aspect by discussing how to prevent certain pancreatic illnesses and keep your pancreas adorable!

The pancreas is a glandular organ located right behind the stomach that is part of both our *digestive* and *endocrine* systems. The head of the pancreas tucks into the “C” shaped loop of the duodenum, which is the first part of the small intestine as it leaves the stomach. The body and tail stretch across the upper part of the abdomen to the left side and almost touch the spleen (see diagram). The pancreas is a digestive organ in that it secretes pancreatic juice which contains enzymes that assist in digestion and absorption of nutrients in the small intestine. These are secreted via the pancreatic duct and empty into the duodenum, where bile from the gallbladder is also secreted. These enzymes help to further break down the carbohydrates, proteins, and fats in the food we eat. However, the pancreas is dual purpose, and is also an endocrine gland producing several important hormones, including insulin, glucagon, somatostatin, and pancreatic polypeptide. These circulate in the blood and help to regulate other body systems and processes to keep the balance we need for proper health and wellness.

There are three conditions that we would like you to know about in which you will know your pancreas is there, and it will cause you some problems that require professional medical help. The first is pancreatic laceration or rupture. This is not very common, and usually happens in a trauma situation such as a motor vehicle accident (MVA), fall from a height, or a hard “hit” in sports such as football. If the pancreas ruptures, it is possible that the digestive enzymes it produces can be released into the abdomen and activated to cause “self digestion” of surrounding tissue. At a minimum, it would lead to intense inflammation in the upper abdomen which can affect other nearby organs and structures. In this situation, a CT scan could identify the problem and a surgical consult obtained in case this needs to be addressed with an operation.

The second condition that the pancreas plays a major role in is type 1 diabetes mellitus, or DM1. As you may recall from our previous article on diabetes, there are two types, 1 and 2. Remember that one of the *endocrine* functions of the pancreas is the production and secretion of insulin. If you do not produce insulin, you have DM1. You will need to control your blood sugar by taking insulin in addition to being careful about your diet. We believe that DM1 is caused by some insult to the pancreas, possibly a viral infection, which “knocks out” the insulin producing cells. This often presents in childhood or young adulthood when the patient, not suspecting anything, goes into diabetic coma (or DKA – diabetic ketoacidosis). If a person has DM2, they do

produce insulin in the pancreas, but the receptor cells in the body are not “sensitive” to the insulin. This condition can usually be controlled by weight loss, diet control, and medicines other than insulin (but sometimes requires insulin for severe cases).

If you have, or have ever known anyone who had *pancreatitis*, they will tell you they knew they had a pancreas, and it was not adorable to them at that time! Acute pancreatitis, or inflammation of the pancreas, is a very painful and upsetting condition, which usually contributes to nausea and vomiting, and severe dehydration. In its most severe form, it can lead to the pancreas rupturing and causing all the problems described above. Most of the time, it resolves with proper treatment and close observation.

There are two major causes of pancreatitis in the United States, the most common being *gallstones*. In this condition, you may have a gallstone “pass” out of the gallbladder and block the common bile duct as it passes out into the bowel at the duodenum. If it also causes blockage and “back pressure” in the pancreatic duct which is co-located, this can be upsetting to the pancreas resulting in the inflammation. Once diagnosed (by checking some lab results), the pancreas will need to be “cooled down” with hydration, anti-inflammatory medicines, and not eating anything to stimulate it for a couple of days. It is then common to remove the cause, by taking out the gallbladder, before the patient goes home from the hospital.

The other main cause of pancreatitis in the US is alcohol abuse. In our bodies, few organs operate on their own, but rather as intricate systems. Within these systems, an insult to one organ tends to have a “domino effect” on others involved with that system. Alcohol abuse is well known to affect many body systems and organs. It is mainly through its effect on the liver, a major player in the digestive system, that pancreatitis can result. In fact, if the alcohol abuse continues over time, a form of “chronic” pancreatitis can result – and these individuals will then have chronic abdominal pain to add to their list of other problems.

While there are other lesser causes of pancreatitis, such as high triglycerides and scorpion venom, the two listed above are by far the most common we see. Take care of your pancreas by taking care of yourself as part of your overall health and wellness program. There is no such thing as “pancreas tonic,” but you can accomplish the same thing by eating a sensible and healthy diet (low fat, careful carbs, high protein, and high fiber), regular exercise, keeping fit and hydrated, and abstaining from alcohol, or at least using it with moderation.

We really do enjoy hearing from you with any questions, concerns, or ideas for future columns and/or health and wellness related issues for the *Georgia Mountain Laurel*. Please send an email to rabundocor@gmail.com, or call Jamie at 706-782-0480, and we will be sure to consider your input. If you use Twitter, then follow us for health tips and advice @rabundocor. Until next month, live healthy and be well!