Islet Cell Tumor - Diagnosis

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Diagnosis

ON THIS PAGE: You will find a list of the common tests, procedures, and scans that doctors can use to find out what?s wrong and identify the cause of the problem. To see other pages in this guide, use the colored boxes on the right side of your screen, or click ?Next? at the bottom.

Doctors use many tests to diagnose a tumor, find out if it is cancerous, and if so, if it has metastasized (spread). Some tests may also determine which treatments may be the most effective. Imaging tests may be used to find out whether the tumor has spread. This list describes options for diagnosing this type of tumor, and not all tests listed will be used for every person. Your doctor may consider these factors when choosing a diagnostic test:

- Age and medical condition
- Type of tumor suspected
- Signs and symptoms
- Previous test results

In addition to a physical examination, the following tests may be used to diagnose an islet cell tumor:

Laboratory tests. The doctor may take samples of blood, urine, and stool to check for abnormal levels of hormones, glucose, and other substances.

Molecular testing of the tumor. Your doctor may recommend running laboratory tests on a tumor sample to identify specific genes, proteins, and other factors unique to the tumor. Results of these tests will help decide whether your treatment options include a type of treatment called targeted therapy. (For more information see the Treatment [2] Options section.)

Computed tomography (CT or CAT) scan [3]. A CT scan creates a three-dimensional picture of the inside of the body with an x-ray machine. A computer then combines these images into a detailed, cross-sectional view that shows any abnormalities or tumors. A CT scan can also be used to measure the tumor?s size. Sometimes, a contrast medium (a special dye) is injected into a patient?s vein or given orally (by mouth) to provide better detail.

Ultrasound [4]. An ultrasound uses sound waves to create a picture of the internal organs. Tumors generate different echoes of the sound waves than healthy tissue does, so when the waves bounce back to a computer and are changed into images, the doctor can find masses inside the body. There are different types of ultrasounds. During a standard (transabdominal) ultrasound, the probe is placed on the outside of the abdomen. These images are often not clear enough to diagnose slight changes in the pancreas and other organs. In an endoscopic ultrasound, the probe is connected to the end of the endoscope (a thin, flexible, lighted tube that is used to look inside the body) and carefully slid down the esophagus into the stomach and duodenum (the top of the small intestine). This type of ultrasound gives a clearer picture of the pancreas and other organs. Learn more about endoscopic techniques [5] in this additional article on Cancer.Net.

X-ray. An x-ray is a way to create a picture of the structures inside of the body using a small amount of radiation. Sometimes, the patient will be asked to swallow barium (called a barium swallow), which coats the mouth and throat, to provide better detail on the x-ray.

Magnetic resonance imaging (MRI) [6]. An MRI uses magnetic fields, not x-rays, to produce detailed images of the body. A contrast medium may be injected into a patient?s vein or given orally to create a clearer picture. Neuroendocrine tumors of the pancreas are sometimes best shown using an MRI, especially if they have spread to the liver.

Octreotide scan. An octreotide scan is a special type of nuclear medicine scan used to find an islet cell tumor and where it may have spread. A person is given a small amount of a radioactive substance, which shows up on pictures taken by a gamma camera. The test takes place over several days.

After these diagnostic tests are done, your doctor will review all of the results with you. If the diagnosis is an islet cell tumor, these results also help the doctor describe the tumor; this is called staging.

Choose ?Next? (below, right) to continue reading this guide to learn about the different stages for this type of tumor. Or, use the colored boxes located on the right side of your screen to visit any section.

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