

by blogmin (Google Alerts 4/14/2009)

Also known as: CgA

Related tests: Serotonin, 5-HIAA, Catecholamines, Tumor Markers

Chromogranin A: At A Glance

Why get tested?

To help diagnose and monitor carcinoid tumors and other neuroendocrine tumors

When to get tested?

When you have symptoms suggestive of a carcinoid tumor such as flushing, diarrhea, and/or wheezing; when your doctor thinks that you may have a carcinoid or other neuroendocrine tumor

Sample required?

A blood sample drawn from a vein in your arm

Chromogranin A: The Test Sample

What is being tested?

This test measures the amount of Chromogranin A (CgA) in the blood. CgA is a protein found in and released from neuroendocrine cells. Neuroendocrine cells, and the endocrine system glands that they are found in, can give rise to a variety of tumors, both benign and malignant. They include carcinoid tumors, pheochromocytomas, insulinomas, small cell lung cancers, neuroblastomas, and other neuroendocrine tumors. Many of these tumors release large quantities of hormones - such as serotonin, catecholamines, or insulin - continuously or intermittently, causing symptoms characteristic for that tumor. However, some neuroendocrine tumors do not release the expected hormones. In either case, neuroendocrine tumors are frequently associated with increased concentrations of CgA.

How is the sample collected for testing?

A blood sample is obtained by inserting a needle into a vein in the arm.

Chromogranin A: The Test

How is it used?

The Chromogranin A test is used as a tumor marker. It may be ordered in combination with or in place of 5-HIAA to help diagnose carcinoid tumors. It is also used to help monitor the effectiveness of treatment and detect recurrence of this tumor. Sometimes it may be ordered with specific hormones, such as catecholamines, to help diagnose and monitor a pheochromocytoma. It may also be used to detect the presence of other neuroendocrine tumors, even those that do not secrete hormones.

When is it ordered?

CgA is ordered along with other tests when a doctor suspects that a patient has a carcinoid tumor, pheochromocytoma, or other neuroendocrine tumor. It may be ordered periodically to help evaluate treatment effectiveness and monitor for tumor recurrence.

What does the test result mean?

Chromogranin A concentrations are normally low. Increased levels in a symptomatic patient may indicate the presence of a tumor but will not tell the doctor what type it is or where it is. The quantity of CgA is not associated with the severity of a patient's symptoms but is associated with the tumor burden - the mass of the tumor.

If concentrations of CgA are elevated prior to treatment and then fall, then treatment is likely to have been effective. If monitored levels begin to rise, then the patient may have a recurrence of the tumor.

Is there anything else I should know?

CgA concentrations may be elevated in other conditions, such as liver disease, inflammatory bowel disease, renal insufficiency, and with stress. These possible causes for elevated CgA levels should be considered when interpreting test results.

There are currently not any FDA approved Chromogranin A tests. Those CgA tests that have been developed and validated by laboratories will all be slightly different, and their results will not be interchangeable. For this reason, if a patient is having more than one CgA test performed (such as for monitoring), then his or her doctor will generally send each sample to the same laboratory.

Chromogranin A: Common Questions

1. Should everyone have a Chromogranin A test? No. This test is usually ordered to help diagnose and monitor a carcinoid or other neuroendocrine tumor, both of which are uncommon. Most people will never need to have this test performed.

2. How does a doctor locate the carcinoid or neuroendocrine tumor? This is usually accomplished through the use of imaging scans such as x-rays, computed tomography

(CT), or magnetic resonance imaging (MRI). In some cases, surgery is required to find the tumor.

3. How does the doctor tell whether a tumor is benign or cancerous? In order to determine whether the tumor is benign or cancerous, the doctor will need to perform a biopsy or remove the tumor surgically and look at the tumor cells under the microscope.