Colon Cancer Immunohistochemistry Testing

Patient Education

Immunohistochemistry (IHC) testing is one of the standard tests completed on all surgically removed colon cancers at Huntsman Cancer Institute (HCI). IHC testing helps determine if you may have a hereditary form of cancer known as Lynch syndrome. This factsheet provides information about IHC testing and what the results could mean for you and your family.

What Is IHC Testing?

IHC testing looks for four proteins (MLH1, MSH2, MSH6, and PMS2) in your tumor. These proteins help your body's cells work properly. Eighty percent (eight in ten) of IHC tests are normal, which means that all four proteins are present in the cancer cells. IHC tests are abnormal in about 20 percent (two in ten) of tests. In these cases, one or more of the proteins are missing from the cancer cells.

Why Is IHC Testing Important?

The majority of colon cancers are sporadic, which means they occur due to chance. However, five to ten percent of colon cancers occur because of an inherited cancer risk. *It is important to identify people who have an inherited cancer risk because they and their families can benefit greatly from increased cancer screening and prevention.*

The most common cause of hereditary colon cancer is a condition called Lynch syndrome. IHC testing can help identify people with this condition. This testing cannot confirm a diagnosis, but having an abnormal IHC test result indicates that a person may have Lynch syndrome, and further testing may be recommended.

What is Lynch Syndrome?

Lynch syndrome is a genetic condition that runs in families—which means that close family members may also have it. A person with Lynch syndrome has a high risk of developing more than one cancer in his or her lifetime. Lynch syndrome also increases the risk of developing cancer at a younger age. Families with Lynch syndrome have a higher risk of developing several types of cancer, including colon, rectal, endometrial, ovarian, stomach, and urinary tract cancers. Frequent cancer screening is recommended for people with Lynch syndrome in order to detect cancer as early as possible, when it can be treated most effectively. Sometimes screening can reveal pre-cancerous changes, and if they are treated, cancer can even be prevented.

How Will I Receive My Results?

If your results show you are not at high risk for Lynch syndrome:

You will receive a letter informing you of this result. Any person with a close relative (parent, sibling, or child) with colon cancer does have a higher than average risk for developing colon cancer themselves. Therefore, we would still encourage your family members to notify their doctors of your diagnosis and to discuss appropriate screening recommendations. In addition, IHC testing does not give information about all forms of hereditary colon cancer. If your personal or family history raises concerns for an inherited cancer risk, an appointment with a genetic counselor may still be recommended.

If your results show you are at high risk for Lynch syndrome:

The Family Cancer Assessment Clinic at HCI will call you to schedule a visit. It is very important that you attend. At this appointment, the genetic counselor and physician will discuss further testing options to determine whether you truly have Lynch syndrome and answer any questions you may have about the condition.

If you have questions about IHC testing or wish to schedule an appointment at the Family Cancer Assessment Clinic, please call 801-587-9555.

For more patient education information, call 1-888-424-2100 toll free or go to www.huntsmancancer.org
Produced by Huntsman Cancer Institute © 2011 • Approved by PESC April 2011 • Review Date April 2014