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Ca 19-9 inferior a 2 0 u/ml

Please enable Javascript in order to use PubChem website. Open Access Journals Ommega Internationals is an open access publishing house of peer reviewed journals in the fields of science, technology and medicine with a sole intention of promulgation of research articles throughout the globe. Join Us Medical providers will order the CA 19-9 blood test to use as a tumor marker. It is not a sensitive enough blood test to be able to use it as a screening tool to diagnose a malignancy, but it can help to differentiate whether there is a cancer present or an inflammation or infection that is causing bothersome symptoms. It is also ordered to monitor how an individual is responding to medical treatments and can be used to watch for a relapse of a cancer. It is an effective blood test only when a tumor is creating enough of this marker, so it is typically ordered with a series of other tests that measure the functioning of the liver and pancreas. About 6 in 10 people with bile duct cancer will also have elevated levels of CA 19-9, so it may also be ordered if this condition is suspected. CA 19-9 levels may also rise if there is a bile duct obstruction. When Should I See a Doctor? Unfortunately many of the conditions that the CA 19-9 blood test is able to detect have a cause that is currently unknown to medical science. There are certain risk factors that may indicate a higher than normal risk for developing pancreatic cancer. These include being in the 50+ age demographic, being male, having diabetes, or having a family history of pancreatic or similar cancers. Individuals who have be exposed to certain dyes and chemicals also have an increased risk of cancer development. About 80% of people who do have pancreatic cancer will experience some level of abdominal pain. This is due to the tumor growing. When the liver is affected, there may be pale-colored stools and dark urine as well. Nausea, bloating, and frequent diarrhea also occur. This is why this cancer is so difficult to detect. This cancer typically grows silently and without pain until it is ready to spread. What Do My Test Results Mean? Most people will have low levels of CA 19-9 in their blood. There are numerous medical conditions which may affect the liver or pancreas that can temporarily cause levels to rise. Low level amounts are generally considered a normal reading if there are no signs or symptoms of cancer or organ distress. It is useful as a tumor marker because the tumors will shed CA 19-9 over the regular course of their life. CA 19-9 is not a cancer causing agent. When there are moderately high levels of CA 19-9 discovered on the blood test, then this may indicate the possibility of a malignancy. Although 95% of pancreatic cancers will create this type of result, certain other cancers and diseases can also simulate the results. That’s why this one test alone cannot be used as a screening tool for cancer. Most people who have elevated levels of CA 19-9 are usually at an advanced stage of their cancer because pancreatic cancer has very few symptoms that register as significant. It is not unusual for someone to not experience any ill effects until the cancer begins to spread into different regions of the body. If CA 19-9 Is Detected, Why Isn’t It Used Regularly? If someone is not exhibiting the signs or symptoms of cancer or a bile duct obstruction, then the test results on the CA 19-9 blood test are not considered reliable. There are many false positives and false negatives that have been associated with regular testing. A CT scan is often a more reliable method of determining if there is cancer present. An MRI or an ultrasound may also be recommended in lieu or in combination with this blood test. Although it is commonly used for cancer or tumor monitoring, a positive CA 19-9 blood test can also be seen in liver disease and cystic fibrosis. Lung and colorectal cancers may also have a positive test result. The diagnosis of pancreatic cancer can be relatively frightening. Survival rates have been improving over the years, but the 1 year survival rate for all pancreatic cancers after diagnosis is just 20%. The five year survival rate is currently just 6%. If you have a family history of cancer, especially within your direct family and pancreatic cancer is involved, then any time the signs or symptoms mentioned here are experienced may be a good time to have a conversation with a medical provider about this blood test. The CA 19-9 blood test results explained here provide generalized information except in specific circumstances. Listen to your body, seek help if needed, and this test may provide the information needed to begin an early intervention treatment plan. Share — copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt — remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution — You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. Tumor markers are not the primary modalities for cancer diagnosis rather they can be used as laboratory test to support the diagnosis[1]. Serum or tissue tumor markers have been proposed for use in clinical practice in order to predict prognosis, monitor response to treatment, and help detect recurrence Some markers may be elevated in more than one type of cancer, thereby decreasing the diagnostic accuracy e.g. elevated CEA levels are found in multiple malignancies of gastrointestinal origin. Also many markers share cross-reacting epitopes with products of normal tissues, which leads to errors in their quantitative estimation. Among such markers, carbohydrate antigen 19-9 (CA 19-9) is the most widely investigated tumor-associated antigen that was first described in the early 1980s[2]. However, some of them are not sufficiently sensitive and/or specific to distinguish between the benign and malignant forms of the disease. Huang and Liu conducted a meta-analysis and concluded that serum CA 19-9 plays an important role in the diagnosis of pancreatic cancer[3]. A large literature review of 24 pancreatic cancer studies in 1990 by Steinberg and associates showed that when using 37 kU / L as a cutoff point, CA 19-9 was reported to have a median sensitivity of 81% and specificity of 90%, whereas increasing the cutoff point to 100 kU / L improved specificity to 98% but reduced sensitivity to 68%[4]. However, because CA 19-9 may be an imprecise or insufficient indicator of disease progression, treatment decisions should not be based solely on an increase of CA 19-9 levels. CA19-9 is the carbohydrate determinant that functions as an adhesion molecule and plays a role in the process of tumor progression[5].CEA is a complex oncofetal tumor marker glycoprotein produced by embryonic tissue of gut, pancreas, and liver discovered in 1965 by Gold and Freedman. It plays an important role as an inter-cellular adhesion molecule[6].Carcino embryonic antigen (CEA)-The serum level is positive has been reported in different carcinoma are as follows• 60–90% - Colorectal carcinoma• 50–80% - Pancreatic carcinoma• 25–50% - Gastric and breast carcinoma.CEA is elevated in many benign disorders: Alcoholic cirrhosis; Hepatitis; Ulcerative colitis; CEA assays lack both sensitivity and specificity required for detection of early cancers. The aim of this review is to identify the diagnostic significance of tumor marker CEA and CA19.9 which has high complexity and consists of several components that converge to articulate the development of cancer.Cancer embryonic antigen (CEA) and carbohydrate antigen (CA19-9) are well-known tumor markers that are used in the diagnosis of colorectal cancer. CEA and CA19-9 are used in clinical practice, but we have to accept the reality that they are not specific for early detection of colon cancer, meaning they cannot be used in the diagnosis of carcinoma in situ[7]. These tumor markers have been used for diagnostic and surveillance purposes[8-10]. Furthermore, in some previous reports, the significance of these tumor markers as prognostic factors was reported[11-13]. Physicians must be careful when using CA 19-9 as a diagnostic aid for pancreatic cancer. CA 19-9 exists as an epitope of salivated Lewis A blood group antigen and it is not expressed in subjects with Lewis α-β- genotype, which accounts for approximately 5–10% of the Caucasian population[14,15]. CA 19-9 is increased in multiple gastrointestinal cancers, but elevated levels are also found in benign diseases, including peptic ulcers, chronic and acute pancreatitis, cirrhosis, cholangitis, and obstructive jaundice[16-18]. In patients with cholangitis and obstructive jaundice, it is recommended to recheck CA 19-9 levels after treatment, as levels usually decline after biliary decompression[19]. CA 19-9 lacks the sensitivity for detecting early pancreatic cancer and is elevated in only 50% of pancreatic adeno carcinomas less than 3 cm in size. CA 19-9 levels were assessed for potential use in determining the antitumor activity of treatment. In a study by Micke and colleagues that sought to determine the predictive value of CA 19-9 in locally advanced pancreatic cancer patients treated with the combination of radiation and 5-FU, CA 19-9 was measured before and during therapy[20]. Patients who had a treatment-related decline in CA 19-9 levels exhibited prolonged median survival. Okusaka and coworkers found that in patients receiving chemotherapy and radiotherapy for locally advanced pancreatic cancer, the CA 19-9 responders had a longer median survival of 10.6 months compared to 4.1 months in non responders[21,22].CA 19-9 has been the most widely used tumor marker in pancreatic cancer. Certain limitations of CA 19-9, such as elevated levels in benign jaundice, pancreatitis, ovarian cancer, or other gastrointestinal malignancies, have made it unfavorable as a screening test. The rising CA 19-9 levels in patients under observation or in those receiving active therapy could be an indicator of disease recurrence, progression, and ineffectiveness of the current regimen, and may be correlated with shorter survival time. However, the value of initiating therapy based on rising CA 19-9 levels remains to be demonstrated. Decisions to initiate or change chemotherapy should not be made before seeking additional confirmative tests. 1. Bhatt, A.N., Mathur, R., Farooque, A., et al. Cancer biomarkers – Current perspectives. (2010) Indian J Med Res 132(1): 129–149. Pubmed│Crossref│Others 2. Stemmler, J., Stieber, P., Szymala, A.M., et al. Are serial CA 19-9 kinetics helpful in predicting survival in patients with advanced or metastatic pancreatic cancer treated with gemcitabine and cisplatin? (2003) Onkologie 26: 462-467. Pubmed│Crossref│Others 3. 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(2003) Int J Radiat Oncol Biol Phys 57(1): 90-97. Pubmed│Crossref│Others 22. Okusaka, T., Okada, S., Sato, T., et al. Tumor markers in evaluating the response to radiotherapy in unresectable pancreatic cancer. (1998) Hepatogastroenterology 45(21): 867-872. Pubmed│Crossref│Others Medical Health Tests Ca-19-9 Submitted on March 27, 2012 Cancer is a progressive disease that affects thousands of people across the world. Cancer is one of the leading killer diseases because of the aggressive nature of the condition. Initially, cancer may begin with a single or small number of cells that become abnormal due to some trigger. These cells gradually multiply and begin to occupy spaces formerly held by healthy cells. As these cells further multiply, the normal functioning of the organ or affected area of the body begins to be compromised. Cancer becomes extremely serious when it passes to other parts of the body. The prognosis at this stage is fairly bleak. There are several kinds of cancer that affect the human body. Cancers are usually named by the area where the cancer originates. There are many different tests and screening methods that can be used to check for cancer. Some of these may even provide evidence of the beginnings of cancer. This information is useful for cancer prevention and care. Most cancer tests are used to confirm the presence of the disease. These tests are, therefore, used for cancer diagnosis and not for cancer prediction or prevention. Importance of CA-19-9 Blood Test The ca-19-9 blood test is a medical health test used to determine the presence of a specific marker in the blood. This marker, known as the ca-19-9 marker corresponds to cancer specific to the pancreas. The pancreas is an organ located in the abdomen which produces juices used for digestion. Pancreatic juices work along with other digestive enzymes produced in the stomach and liver to process food fully. Pancreatic cancer affects this part of the body. This type of cancer is often difficult to detect because the gland is located deep within the abdomen. The gland is also quite small, so the detection of tumor masses on such a gland is not very easy. Therefore, the ca-19-9 blood test is used to detect pancreatic cancer. CA-19-9 Marker The ca-19-9 marker is measured in the blood of an individual. Generally speaking, as the disease advances it will produce greater ca-19-9 elevation. Therefore, the ca-19-9 blood test is useful to detect the presence of the condition as well as to detect how far the condition has advanced. The substance ca-19-9 is produced by the gland when it is affected by cancer. Under normal circumstances, there will be some small amount of ca-19-9 in the blood. When this value rises, the doctor will suspect pancreatic cancer. Some studies have also shown that colon cancer may be detected in a similar way, although there are other tests for colon cancer that are more specific and, therefore, more accurate. How Is the Test Conducted? The ca-19-9 blood test is conducted in the same way as any blood test would be conducted. A sample of blood is drawn from a vein in the upper forearm of the patient. This sample of blood is then tested in a laboratory for the ca-19-9 tumor marker. The quantity of ca-19-9 in the sample will determine whether it falls in the normal range or in the elevated range. The ca-19-9 normal range is any value that falls below 35 units per milliliter of blood. Generally speaking, if the ca-19-9 results are below 25 units per liter of ca-19-9 the person is considered to be healthy. The ca-19-9 blood test usually takes less than a minute to be conducted. This test is ordered when there are signs of the disease having progressed in the individual's system. The test for ca-19-9 is also used to monitor treatment of the condition, especially if the condition has been successfully treated. Patients may be subjected to the ca-19-9 test to check if the cancer has re-appeared or not. 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