Adenosine deaminase measurement, peritoneal fluid

What is this test?

This test measures the amount of an enzyme called adenosine deaminase in peritoneal fluid. This test is used to evaluate and diagnose peritonitis (inflammation of the abdominal wall lining) caused by a tuberculosis infection[1][2].

Why do I need this test?

Laboratory tests may be done for many reasons. Tests are performed for routine health screenings or if a disease or toxicity is suspected. Lab tests may be used to determine if a medical condition is improving or worsening. Lab tests may also be used to measure the success or failure of a medication or treatment plan. Lab tests may be ordered for professional or legal reasons. The following is a possible reason why this test may be done:

TB peritonitis

When and how often should I have this test?

When and how often laboratory tests are done may depend on many factors. The timing of laboratory tests may rely on the results or completion of other tests, procedures, or treatments. Lab tests may be performed immediately in an emergency, or tests may be delayed as a condition is treated or monitored. A test may be suggested or become necessary when certain signs or symptoms appear.

Due to changes in the way your body naturally functions through the course of a day, lab tests may need to be performed at a certain time of day. If you have prepared for a test by changing your food or fluid intake, lab tests may be timed in accordance with those changes. Timing of tests may be based on increased and decreased levels of medications, drugs or other substances in the body.

The age or gender of the person being tested may affect when and how often a lab test is required. Chronic or progressive conditions may need ongoing monitoring through the use of lab tests. Conditions that worsen and improve may also need frequent monitoring. Certain tests may be repeated to obtain a series of results, or tests may need to be repeated to confirm or disprove results. Timing and frequency of lab tests may vary if they are performed for professional or legal reasons.

How should I get ready for the test?

A paracentesis is a procedure that requires written consent. Review the consent form with the healthcare worker and ask any questions that you have before signing the consent form.

Tell the healthcare worker if you have a medical condition or are using a medication or supplement that causes excessive bleeding. You should also report if you have a history of allergic or other reactions to local anesthetics. You may be asked to empty your bladder before the procedure. Your vital signs, weight, and waist measurement will be recorded before and after a paracentesis.

How is the test done?

Peritoneal fluid is the fluid in the space between the membrane linings of the abdomen wall and organs in the abdominal cavity. A paracentesis is a procedure that may be used to obtain a sample of peritoneal fluid. For this procedure, your skin will be shaved and cleaned, and a sterile area will be prepared. A local anesthetic will be used to numb the procedure area. A needle will be inserted through the abdominal wall into a fluid pocket. Sometimes a small incision is made to help insert the needle.

If fluid removal is difficult, you may need to change positions during the procedure to drain different pockets of fluid. After enough fluid has drained, the needle will be removed.

How will the test feel?

The amount of discomfort you feel will depend on many factors, including your sensitivity to pain. Communicate how you are feeling with the person doing the procedure. Inform the person doing the procedure if you feel that you cannot continue with the procedure.

For a paracentesis, a local anesthetic is given to numb the procedure area and decrease pain. When the numbing

medicine is injected, you may feel mild discomfort or stinging. Brief pain may be felt as the needle passes through the abdominal wall. If you have a large buildup of extra peritoneal fluid, this procedure may decrease or relieve abdominal discomfort or difficulty breathing. If a large quantity of fluid is removed you may feel dizzy or light-headed. Tell the person doing the test if you feel dizzy or light-headed. The procedure site may be sore for several days.

What should I do after the test?

After paracentesis is used to collect a sample of peritoneal fluid, pressure may be applied and a bandage will be secured over the puncture site. Your puncture site bandage and vital signs will be monitored frequently for a period of time after this procedure. Tell your healthcare worker immediately should you feel dizziness or weakness shortly after the procedure.

You will be given instructions for how to care for your bandage, and signs and symptoms of infection to watch for. Contact your healthcare worker if you develop a fever or increased pain, and if you see continued drainage, increasing redness, swelling, or pus formation at the procedure site.

After a paracentesis, healthcare workers may need to check your urine for any blood, as this may be a sign of bladder injury. Watch for any blood in your urine for at least 24 hours after the procedure. If you see blood in your urine, contact your healthcare worker immediately.

What are the risks?

Peritoneal fluid: A procedure called a paracentesis is done to collect a sample of peritoneal fluid for testing. Risks of a paracentesis include infection and severe bleeding. The needle used to do the procedure may damage an organ in the abdomen. If a large quantity of fluid is removed, your blood pressure may drop too low. If you have a medical condition, or are using a medication or supplement that causes excessive bleeding, you are at a higher risk of bleeding from the puncture site. The person doing this procedure may need to perform it more than once. Talk to your healthcare worker if you have any concerns about the risks of having a paracentesis.

What are normal results for this test?

Laboratory test results may vary depending on your age, gender, health history, the method used for the test, and many other factors. If your results are different from the results suggested below, this may not mean that you have a disease. Contact your healthcare worker if you have any questions. The following are considered to be normal results for this test:

Range varies based on the cut-off value used in studies

What follow up should I do after this test?

Ask your healthcare worker how you will be informed of the test results. You may be asked to call for results, schedule an appointment to discuss results, or notified of results by mail. Follow up care varies depending on many factors related to your test. Sometimes there is no follow up after you have been notified of test results. At other times follow up may be suggested or necessary. Some examples of follow up care include changes to medication or treatment plans, referral to a specialist, more or less frequent monitoring, and additional tests or procedures. Talk with your healthcare worker about any concerns or questions you have regarding follow up care or instructions.

Where can I get more information?

Related Companies

Centers for Disease Control and Prevention

References

1. Burgess LJ: Biochemical analysis of pleural, peritoneal and pericardial effusions. Clin Chim Acta 2004; 343:61-84.
2. Voigt MD, Kalvaria I, Trey C, et al: Diagnostic value of ascites adenosine deaminase in tuberculosis peritonitis. Lancet 1989; 1(8641):751-754.