

Calprotectin in faeces

Calprotectin (calprotectin) is a leukocyte cytosol protein that is released from leukocytes after their activation or lysis. It is a calcium binding protein with antimicrobial activity with a molecular weight of 36.5 kDa. It consists of two heavy chains and one light chain. It consists mainly of monocytes and neutrophils.

Calprotectin is resistant to enzymatic degradation, therefore it is possible to determine its concentration in secretions. As a marker established in feces, it shows lower variability than hemoglobin and is a suitable indicator in the diagnosis and monitoring of therapy of acute and chronic intestinal inflammatory diseases – ulcerative colitis and Crohn's disease, or necrotizing enterocolitis in children. The content of calprotectin in the stool correlates with the amount of leukocytes excreted in the intestinal lumen. Thus, it allows to estimate the degree of leukocyte infiltration of the intestinal mucosa.

Determination of the concentration in a stool sample with a cut-off value of 30 mg / l shows a specificity of 97 % and a sensitivity of 100 % for differential diagnosis between acute Crohn's disease and irritable bowel syndrome. Calprotectin in feces is also tested as a marker of colorectal cancer, most of these citations compare the determination of calprotectin with the occult bleeding test – FOBT, which is a common screening test for colorectal tumors. Markers of inflammatory diseases that can be determined in the stool include lactoferrin (lactoferrin).

Other causes of elevation of calprotectin in the stool – the use of salicylates and non-steroidal anti inflammatory drugs, cirrhosis of the liver, tumors of the intestine.

Indication of examination::

- differential diagnosis of chronic diarrhea (to distinguish functional disorders of the digestive system from inflammation-accompanied organic impairment)
- monitoring of the activity of intestinal inflammation, prediction of impending relapse of nonspecific intestinal inflammation.

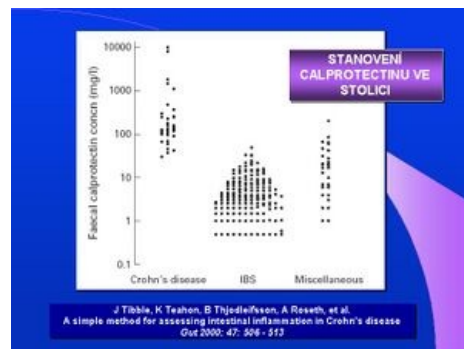
Links

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