

Parameters of liver synthetic function

We will assess the parameters of the synthetic function of the liver by evaluating plasma proteins.

Electrophoresis

 For more information see *Electrophoresis*.

Today electrophoresis has more of a screening character, mainly when searching for gammopathy (paraprotein). From the liver point of view, we monitor albumin or α , β globulins.

Previously, electrophoresis was used to evaluate inflammation:

- beginning of inflammation - α_1 , α_2 increased
- late inflammation - α_2 and γ increased
- chronic inflammation - γ increased
- acute exacerbation chr. of inflammation - α_1 , α_2 and γ increased



Electrophoresis of serum proteins

 For more information see *Serum protein electrophoresis*.

Prealbumin

It is a transport protein for T3 and T4, in complex with it is RBP, retinol binding protein - carries vitamin A. The half-life of prealbumin is 12 h. A decrease is an early and sensitive indicator of protein malnutrition (loss through the intestines, kidneys or malabsorption). Only with HD the levels rise.

Albumin

 For more information see *Albumin*.

Quantitative assessment with an albumin half-life of 15-19 days. The Liver has a large proteosynthetic reserve → when it is already decreasing, the disease is already developed. Albumin is used more for long-term monitoring of the course of diseases.

Main causes of *hypalbuminemia*:

- reduced synthesis - primarily - liver diseases, secondarily with low AMK intake
- increased catabolism
- protein losses - urine, DM, lupus, stool, skin
- reduced resorption of AMK by the intestine - malabsorption
- sequestration of albumin into the third space (ascites)

Hyperalbuminemia - caused purely by dehydration.

Oromucoid

It is an acute phase protein (see there). It decreases in malnourished women.

Transferin

Transferin is determined for the differential diagnosis of anemia and for monitoring treatment. It is a negative acute phase protein.

- CDT transferrin - it is changed in alcoholics and in pregnancy, in the West it is determined when hiring...

C-reactive protein and other acute phase proteins

 For more information see *C-reactive protein*.

 For more information see *Acute Phase Proteins*.

Links

Related Articles

- Biochemical tests of the liver
- Liver function tests

References

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