

Helicobacter pylori

General:

Helicobacter pylori (earlier *Campylobacter pylori*) is considered an important and frequent pathogenic factor for the development of chronic gastritis of the antrum type (antral alkalization) with hypochlorhydria. An association with gastritis-associated ulcer diseases is described. The bacterium is acid resistant and binds to substances, which are similar to blood groups (increased occurrence in blood group 0). The infection is usually acquired in infancy, also depending on social environment. A first infection in adulthood is relatively rare. Sixty to 80% of the population are affected; however, not everybody presents symptoms. A connection with chronic urticaria is suspected.

The acute infection changes mostly into a persisting colonization of the anacidic gastral mucosa. This is supported by an additional enterovirus infection, or e.g. during undernourishment in childhood (developing countries). The immune response is mainly production of IgG (chronic infection) and IgA (fresh infection). IgM is formed in non-traceable quantities and diagnostically without significance. Epidemiological studies point to an increased risk of gastric carcinoma by the factor 3-6, MALT lymphomas of the stomach were described as well. The culture with sensitivity/resistance is important for detecting resistant germs (metronidazole, clarithromycin, ciprofloxacin). The antigen test in stool has a specificity and sensitivity which is comparable to the ¹³C breath test. In children the compliance with the breath test is difficult.

Advantages of the examination are: Post-therapeutic monitoring, diagnostics of a possible reinfection, better compliance in children, possible reduction of gastroscopies, negative results exclude an acute *Helicobacter pylori* infection, recognition of patients without symptoms but carriers of *H. pylori*.

The following tests are available:

- **Helicobacter pylori IgA antibodies**

Indication: suspicion of acute infection

Material: 1 ml serum

TAT: 7-10 days*

Method: EIA

Units: titer

Ref.- range: see report

- **Helicobacter pylori IgG antibodies**

Indication: suspicion of recent infection

Material: 1 ml serum

TAT: 7-10 days*

Method: EIA

Units: U/ml

Ref.- range: see report

- **Helicobacter pylori IgA antibodies, Blot**

Indication: clarification of specificity of positive IgA EIA antibodies.

Material: 1 ml serum

TAT: 7-10 days*

Method: Blot

- **Helicobacter pylori IgG antibodies, Blot**

Indication: clarification of specificity of positive IgG EIA antibodies

Material: 1 ml serum

TAT: 7-10 days*

Method: Blot

- **Helicobacter pylori antigen in stool**

Indication: acute infection, post-therapeutic monitoring, diagnostics of a possible reinfection, recognition of carriers

Material: 5 g stool

Stability: 10 days at 2 to 8°C

Method: IA

TAT: 3 days, FML

Ref. Range: not detectable

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>