FlorInScan

Personalized Report

CACTUS HEALTH SRL

4E Zagazului street, building B, ground floor
RO-014262 BUCHAREST

Reference: 1908160651
Patient-ID: 2016-02-21

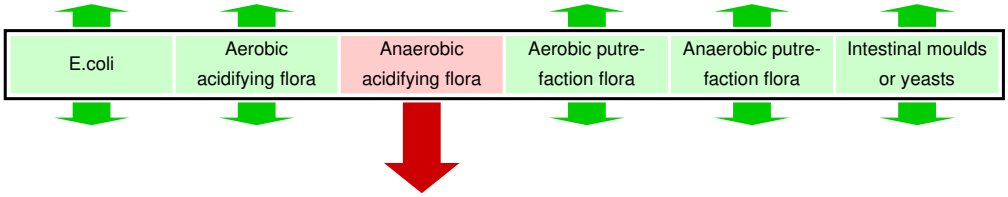
Entry date:	Date of report:	Validated by:
16.08.2019	21.08.2019	Pol Brouart

Lactobacillus spp.:
Please pay attention to the change of reference range since 15.07.2019!

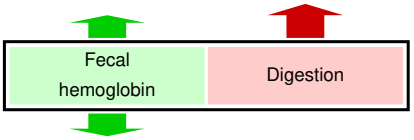
State of the intestinal flora: 4 (Presence of a weak dysbiosis)

State of the intestinal flora	
0-3	No particular dysbiosis
4-5	Presence of a weak dysbiosis
6-7	Presence of a moderate dysbiosis
8-14	Presence of a marked dysbiosis
>14	Very pronounced dysbiosis

FlorInScan



FlorInScan+ (FlorInScan plus)



Summary

The stool flora is characterized by a reduced growth of the anaerobic acidifying flora. Although there is no overgrowth of the putrefaction flora, the defeciency of the acidifying flora can lead to an alkalization of the colon and a reduced colonization resistance of the small intestine.
Presence of signs of maldigestion/malabsorption. The existence of digestive residues combined with physiologic pancreatic elastase-1 levels is often associated with an overstrained digestive tract due to an unbalanced diet. Diminshed pancreatic elastase-1 levels are typical for an exocrine pancreatic insufficiency.

Colonization resistance:
The obligate intestinal germs such as E.coli, Enterococcus, Lactobacillus, Bacteroides and Bifidobacterium and the secretory IgA create a hostile environment and serve as a protection against colonization with pathogenic bacteria and with yeast or mould. If the intestinal equilibrium is disturbed for example by a decreased growth of one of the above mentioned germs, an ecological niche is created and supports the implantation of potential pathogenic germs. This is a so called diminished colonization resistance.

Results

	measured value	Tolerance range
Bacteriology		
Aerobic flora		
E. coli	$1 \cdot 10^7$ CFU/g	$5 \cdot 10^5$ - $1 \cdot 10^7$
E. coli var	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Enterobacteriaceae	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Proteus mirabilis	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Proteus vulgaris	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Klebsiella oxytoca	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Klebsiella pneumoniae	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Citrobacter spp	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Serratia spp	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Hafnia alvei	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Morganella morganii	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Providencia spp	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Pseudomonas spp	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
other aerobic germs	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Facultative anaerobes		
Enterococcus	$1 \cdot 10^6$ CFU/g	$1 \cdot 10^6$ - $1 \cdot 10^7$
Staphylococcus aureus	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
β-haemolys. Streptococcus	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Bacillus spp	< $1 \cdot 10^5$ CFU/g	≤ $9 \cdot 10^4$
Anaerobic flora		
Bacteroidales	$3 \cdot 10^8$ CFU/g	$1 \cdot 10^8$ - $1 \cdot 10^{10}$
Clostridium spp	< $1 \cdot 10^5$ CFU/g	≤ $1 \cdot 10^5$
Bifidobacterium spp	$4 \cdot 10^8$ CFU/g	$1 \cdot 10^8$ - $1 \cdot 10^{10}$
Lactobacillus spp	**< $1 \cdot 10^5$ CFU/g**	$1 \cdot 10^5$ - $1 \cdot 10^7$
Mycology		
Candida albicans	< $1 \cdot 10^3$ CFU/g	≤ $1 \cdot 10^3$
Candida spp.	< $1 \cdot 10^3$ CFU/g	≤ $1 \cdot 10^3$
Geotrichum	< $1 \cdot 10^3$ CFU/g	≤ $1 \cdot 10^3$
other yeasts/ moulds	< $1 \cdot 10^3$ CFU/g	≤ $1 \cdot 10^3$
Other markers		
Fecal occult blood		
Fecal hemoglobin	-	
Digestion and food intolerance		
pH	**6.7**	5.1 - 6.0
Color	brown	
Consistency	pasty	
Starch	-	
Lipids	++	
Muscle	-	
Pancreatic elastase 1	> 500 µg/g	≥ 200

Results and interpretation

The aerobic resident flora is in equilibrium and does not show any abnormalities.

The growth of Lactobacillus spp is decreased. Lactobacteria are part of the obligate resident intestinal flora and inhibit the multiplication and growth of non-resident germs particularly from the putrefaction flora like Clostridium spp. and Proteus by the production of bacteriocines. Lactobacteria have an exclusive saccharolytic activity. By splitting carbohydrates, they contribute to the acidification of the intestinal environment. Natural sources of Lactobacillus spp. are fermented milk products and acidifying foods such as pickled sour cabbage (Sauerkraut). It is important to note that these products yield high concentrations of histamine and thus may induce a histamine intolerance especially if the activity of the endogenous diaminoxidase is low. The serum diaminooxydase concentration should be measured in case of a suspicion of histamine intolerance. If diaminooxydase levels are low, a substitution with a dietary supplements containing Lactobacillus is highly recommended instead of natural sources of these probiotic bacteria.

Absence of a colonization by yeasts or moulds.

The pH of young children should be between 5.0 and 5.5. An increased value is associated with an unbalanced diet excessively in lipids and proteins.

The detection of large quantities of lipids is indicative of an uncomplete digestion of fatty acids. Possible causes could be an unsufficient emulsification due to a biliary excretion disorder or due to an exocrine pancreatic insufficiency.

Normal pancreatic elastase-1 value indicating a physiological function of the exocrine pancreas.

No human fecal hemoglobin was detected.

Treatment recommendations

Lactobacillus probiotic to stimulate the growth of the acidifying flora.
Treatment duration: 3 months

General explications

Lactobacillus spp.
Lactobacilli are present in large concentrations in vegetables and are used as preservative agents by the food industry. Lactobacilli belong to the obligate but not to the resident flora of the small and large bowel, the buccal cavity and the vagina. A continuous supply needs to be provided through the consumption of yoghurts, cheese and crout. The metabolic activity olf lactobacilli is purely saccharolytic. They play a key role in pH regulation by producing short-chain fatty acids. Lactobacilli inhibit the proliferation of the putrefaction flora and the synthesis of carcinogenic compounds through the production of bactericins. The optimal pH for lactobacillus metabolic activity is about 6.

pH
The pH reflects the acid-base balance of the bowel content and is neither related to nor influenced by the pH of the stomach. Following factors influence the intestinal pH:
Fibers and the composition of the food, fermented products, intestinal flora, antibiotics and transit time of stool. An acidic stool is frequently associated with a carbon hydrate metabolism disorder. Laxatives (chemical and herbal substances) are associated with an acidification of the stool (pH <6). Increased consumption of a protein-rich food, slow transit /constipation and reduced fiber intake alkalinize the stool (pH >7.0).

Lipids
The excreted lipids can be composed of triglycerides, long chain fatty acids, cholesterin and phospholipids. They originate primarily from lipids ingested by food and they are indicative of an eventual maldigestion or a disturbed fat intake. An impaired lipase function or production of bile can lead to a malabsorption. Following circumstances have to be considered where increased concentrations of lipids are present in stool:

- Exocrine pancreas insufficiency (especially lipase)
- Cholestasis (gallbladder duct obstruction) or liver disease
- Disturbed enterohepatic circulation (small intestine disorder, bile salt deconjugation due to small bowel overgrowth syndrome SIBOS)
- Celiac disease
- Short bowel syndrome
- Whipple disease (rare)

Examples of our Genetic Profiles:

FEMgen:	Sporadic breast cancer
OSTEOgen:	Osteoporosis
THROMBOgen:	Thrombosis
PROSTATEgen:	Prostate cancer
DETOXgen:	Detoxification capacities
DETOXgen heavy metals:	Detoxification of heavy metals
OXIgen:	Oxidative stress
DENTYgen:	Periodontitis
NEUROgen	Neurodegenerative diseases
CARDIOgen:	Cardiovascular diseases
MACULAgen:	Age-Related Macular Degeneration
LIPIDgen:	Lipid metabolism disorders
DIABETOgen:	Diabetes type II
COLOgen:	Sporadic colon carcinoma
ALOPECIAgen:	Androgenetic alopecia
EMOgen:	Emotional instability
AUTISMgen:	Autism
SKINgen:	Skin health
WEIGHTgen:	Weight control
WELL-BEING:	Anti-aging
NICOTINEgen:	Nicotine addiction

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