

ArminLabs GmbH · Zirbelstr. 58 2nd floor · 86154 Augsburg · Germany

AONM
Commercial End 80
Swaffham Bulbeck

GB CB250NE Cambridge

Patient : **Orchard, Jonathan**

Date of Birth: 06/10/1971 male

Final report

Order-ID : **839176069**

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Date of Reception/Report : 09/20/2016

09/22/2016

Analysis	Result	Units	Reference Range	Chart
Haematology				
6 Blood count				
6 Leucocytes	7,45	Gpt/l	4,00 - 10,00	[....*...]
6 Erythrocytes	5,67	Tpt/l	4,50 - 5,80	[.....*]
6 Hemoglobin	16,1	g/dl	14,0 - 18,0	[....*...]
6 Hematocrit	47,4	%	42,0 - 52,0	[....*...]
6 MCV	84	fl	82 - 98	[.*.....]
6 MCH	28	pg	27 - 31	[..*.....]
6 MCHC	34	g/dl	32 - 36	[....*...]
6 Thrombocytes	223	Gpt/l	140 - 400	[..*.....]
6 Differential Blood count				
6 Neutroph. Granulocytes	+	76,90 %	40,00 - 75,00	[.....*]
6 Lymphocytes	-	15,30 %	17,00 - 47,00	[<*]
6 Monocytes		4,80 %	4,00 - 12,00	[*.....]
6 Eosin. Granulocytes		0,70 %	< 7,00	[*.....]
6 Basoph. Granulocytes		0,80 %	< 1,50	[....*...]
6 Others		1,50 %		

Borrelia EliSpot

1 Borrelia b. Full Antigen	9 SI
1 Borrelia b. OSP-Mix	5 SI
1 Borrelia burgdorferi LFA-1	1 SI
0-1 = negative	
2-3 = weak positive	
> 3 = positive	

The results of the Elispot-Tests are an indication for a current cellular activity against Borrelia-burgdorferi.

Explanation of antigens:

Borrelia-burgdorferi Fully Antigen: Borrelia burgdorferi B31 reference strain (Borrelia burgdorferi sensu stricto)
Borrelia-burgdorferi Peptide-Mix: OspA from Borrelia b. sensu stricto, Borrelia afzelii, Borrelia garinii + OspC native + DbpA recombinant.

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Borrelia-burgdorferi LFA-1 (Lymphocyte Function Antigen 1)
Own body protein + Borrelia burgdorferi sensu stricto
(shared epitope). LFA1 can be associated with autoimmune
diseases: collagenosis, Rheumatoid Arthritis,
vasculitis. If positive or borderline positive look at:
ANA, CCP-antibodies, ANCA.

Attention: New reference range since 1st September 2016!

CD3-/CD57+ Cells

6 CD3-/CD56+ Flow Cytometry				
6 T cells CD3+ (%)	78,29	%	62,00 - 80,00	[.....*]
6 T cells CD3+ (absolute)	892	/ul	900 - 1900	<*]
6 NK cells CD56+ CD3- (%)	8,71	%	6,00 - 29,00	[*.....]
6 NK cells CD56+ CD3- (absolute)	99	/ul	60 - 700	[*.....]
6 CD57+ NK-cells (%)	21,28	%	2,00 - 77,00	[..*.....]
6 CD57+ NK-cells (absolute)	21	/ul	100 - 360	<*]

The result of the CD57-cell count indicates chronic
immune-suppression, which can be caused by Borrelia
burgdorferi or other bacteria like Chlamydia pneumoniae or
Mycoplasma pneumoniae.

Low numbers of the CD3+T-cells can be seen in viral
infections with EBV, CMV, HSV, VZV, HHV6, Coxsackie-Virus.

We recommend following laboratory tests:

EBV-EliSpot, EBV-antibodies, CMV-EliSpot, CMV-antibodies,
Herpes Simplex Virus 1/2-EliSpot,
Herpes Simplex Virus 1/2-IgG/IgA/IgM-antibodies, Varicella
Zoster Virus-IgG/IgA/IgM-antibodies, HHV6-antibodies.

Ehrlichia & Anaplasma EliSpot

1 Ehrlichia/Anaplasma EliSpot	!	2 SI
0-1	= negative	
2-3	= weak positive	
> 3	= positive	

The result of the EliSpot-Test is an indication for a weak
current cellular activity against Ehrlichia/Anaplasma.

Attention: New reference range since 1st September 2016!

Anaplasma IgM-/IgG-antibodies

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Analysis	Result	Units	Reference Range	Chart
4 Anaplasma IgG (IFT)	<1:64		< 1:64	[.....*...]
4 Anaplasma IgM (IFT)	<1:20		< 1:20	[.....*...]
<p>No serological evidence for an infection with Anaplasma phagocytophilum. Please look at the Ehrlichia/Anaplasma-Elispot for the current cellular activity.</p>				
Bartonella IgG-antibodies				
4 Bartonella henselae-IgG (IFT)	<1:64		< 1:64	[.....*...]
4 Bartonella quintana-IgG (IFT)	<1:64		< 1:64	[.....*...]
Bartonella IgM-antibodies				
4 Bartonella henselae-IgM (IFT)	<1:20		< 1:20	[.....*...]
4 Bartonella quintana-IgM (IFT)	<1:20		< 1:20	[.....*...]
<p>Serological no evidence for an infection with Bartonella henselae or Bartonellen quintana.</p>				
Coxsackie IgG-/IgA-antibodies				
4 Coxsackie-Virus IgG A7 (IFT)	1:100		< 1:100	[.....*...]
4 Coxsackie-Virus IgG B1 (IFT) +	1:1000		< 1:100	[.....*...]
4 Coxsackie-Virus IgA A7 (IFT)	1:10		< 1:10	[.....*...]
4 Coxsackie-Virus IgA B1 (IFT) +	1:100		< 1:10	[.....*...]
<p>The specific Coxsackie-Virus Type A7/B1-IgG-/IgA-antibodies are an indication for a current humoral immune response against Coxsackie-Virus Type A7 and Coxsackie-Virus Type B1. The test system is highly specific for Coxsackie Virus antibodies. Other Enterovirus antibodies (f.e. Echovirus antibodies) are not detectable.</p>				

validated by
Dr.Armin Schwarzbach