12/10/2019

Re: Devakrishna Achanta
DOB: 12/08/2016

Decreasing inflammation:

Supplements:
1) Fish oil - OmegAvail is a great liquid omega supplement

2) Probiotics - any brand is fine. ProFlora with bio-botanicals is a good option

3) Start GI Detox (bio-botanicals, you can buy online) 1 capsule mixed with juice twice a day on an empty stomach.

4) Turmeric 500mg daily

Consider reducing gluten and dairy containing products as these can be inflammatory to the body.

Good resources:
Survivingmold.com

****Envirobiomics.com** - they have mold testing kits for the home. The FAB2 kit (#6 on the list) is the most comprehensive.

Will recheck labs in 3 months.

Sincerely,

Melissa Jones, MD

Houston Area Pediatric Neurology
24514 Kingsland Blvd, Katy, TX 77494
Phone: 832-471-6248, Fax: 832-471-6984

Patient Information	Specimen Information	Client Information
ACHANTA, DEVAKRISHNA **DOB: 12/08/2016 AGE: 2** Gender: M Fasting: N Phone: 832.206.9821 Patient ID: 89680431 Health ID: 8573017876954128	Specimen: HL704177S Requisition: 0000713 Collected: 11/22/2019 / 10:17 CST Received: 11/25/2019 / 12:27 CST Reported: 12/04/2019 / 11:21 CST	Client #: 5968900 HS43MAIL JONES, MELISSA S HOUSTON AREA PEDIATRIC NEURO 24514 KINGSLAND BLVD KATY, TX 77494-3429

COMMENTS: FASTING:NO

Test Name	In Range	Out Of Range	Reference Range	Lab
COMPLEMENT COMP C3 + C4				
COMPLEMENT COMPONENT C3C	103		80-170 mg/dL	RGA
COMPLEMENT COMPONENT C4C	17		14-44 mg/dL	RGA
COMPREHENSIVE METABOLIC PANEL				RGA
GLUCOSE	76		65-139 mg/dL	
			Non-fasting reference interval	
UREA NITROGEN (BUN)	11		3-12 mg/dL	
CREATININE	0.34		0.20-0.73 mg/dL	
Patient is <18 years old. Unable to calculate eGFR.				
BUN/CREATININE RATIO	NOT APPLICABLE		6-22 (calc)	
SODIUM	140		135-146 mmol/L	
POTASSIUM	4.3		3.8-5.1 mmol/L	
CHLORIDE	107		98-110 mmol/L	
CARBON DIOXIDE	21		20-32 mmol/L	
CALCIUM	10.5		8.5-10.6 mg/dL	
PROTEIN, TOTAL	6.5		6.3-8.2 g/dL	
ALBUMIN	4.6		3.6-5.1 g/dL	
GLOBULIN		**1.9 L**	2.1-3.5 g/dL (calc)	
ALBUMIN/GLOBULIN RATIO	2.4		1.0-2.5 (calc)	
BILIRUBIN, TOTAL	0.7		0.2-0.8 mg/dL	
ALKALINE PHOSPHATASE	245		104-345 U/L	
AST	29		3-56 U/L	
ALT	16		5-30 U/L	
HLA DRB1/DQB1				BCS
INTERMEDIATE RESOLUTION				
DRB1	DRB1*14 (DR1404)			
DRB1*14:DFHA				
DRB1	DRB1*15 (DR15)			
DRB1*15:AZBTW				
DQB1	DQB1*05 (DQ5)			
DQB1*05:BJEXF				
DQB1	DQB1*06 (DQ6)			
DQB1*06:BHVUU				
COMMENT	See Comment			

Serologic equivalent is given between parentheses. Serologic equivalents have been assigned based on the publication 'Nomenclature for factors of the HLA system, 2010' by Marsh et al. 2010, Tissue Antigens 75, 291-455, or the publication 'The HLA dictionary 2008: a summary of HLA-A, -B, -C, -DRB1/3/4/5, and -DQB1 alleles and their association with serologically defined HLA-A, -B, -C, -DR, and -DQ antigens' by Holdsworth et al. 2009, Tissue Antigens 73, 95-170.

Result Comments may contain NMDP Codes. A list of all unresolved HLA alleles reported with NMDP codes can be retrieved electronically by referring to the NMDP website and utilizing the multiple allele code (MAC) designation look up tool, currently found at https://hml.nmdp.org/MacUI/ (and available via a link from

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https://bioinformatics.bethematchclinical.org/hla-resources/allele-codes/).

Intermediate resolution HLA typing is routinely performed by PCR-rSSO or PCR-SSP methodologies. The version(s) of the IMGT HLA database used to interpret the HLA results is available upon request.

When only a single antigen or allele is detected, it likely indicates homozygosity and is reported accordingly. However, additional testing would be required for confirmation.

Although HLA-C*12 through -C*18 do not have recognized serologic equivalents, they are known to induce specific antibodies.

This test was developed and its performance characteristics determined by Versiti Wisconsin, Inc. It has not been cleared or approved by the US Food and Drug Administration. This test is used for clinical purposes. It should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratory Improvement Amendments (CLIA) as qualified to perform high complexity clinical laboratory testing.

VASOACTIVE INTESTINAL POLYPEPTIDE (VIP), P	<50		<75 pg/mL	MYM

----------ADDITIONAL INFORMATION----------
Vasoactive intestinal polypeptide is a manual radioimmunoassay. This test is frequently used as a tumor marker. Values obtained with different assay methods or kits may be different and cannot be used interchangeably. Test results cannot be interpreted as absolute evidence for the presence or absence of malignant disease.
This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

VEGF MUTATION ANALYSIS				EZ
SPECIMEN SOURCE:	BLOOD			
VEGF-634	GG			
VEGF-1154	AG			
VEGF-1498	CT			
VEGF-2578	AC			

This genotyping test is performed to provide information on the genetic background of patients who already have cancer. The testing was performed using SNaPshot technology. Different genotypes have been reported to correlate with response or side-effects to certain medications. Specific genotypes (VEGF-2578 AA and VEGF-1154 AA) have been reported to be associated with better survival in patients treated with anti-VEGF antibodies. Genotypes (VEGF-634 CC and VEGF-1498 TT) have been reported to have less side-effect (hypertension) in patients treated with anti-VEGF antibodies (1).

This assay detects four polymorphisms in the vascular endothelial growth factor (VEGF) gene in human blood. The

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assay does not test for the presence of other polymorphisms. Since genetic variation and other problems can affect the accuracy of polymorphism testing, the results should be interpreted in light of clinical data including type of disease, treatment, and other laboratory data.

This test is performed pursuant to a license agreement with Roche Molecular Systems, Inc.

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute San Juan Capistrano. It has not been cleared or approved by FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

(1) Bryan P. Schneider, et. al. Association of vascular endothelial growth factor and vascular endothelial growth factor receptor-2 genetic polymorphisms with outcome in a trial of paclitaxel compared with paclitaxel plus bevacizumab in advanced breast cancer: ECOG 2100. Journal of Clinical Oncology, 2008;26(28):4672-4678.

Test Name	In Range	Out Of Range	Reference Range	Lab
CBC (INCLUDES DIFF/PLT)				RGA
WHITE BLOOD CELL COUNT	7.2		6.0-17.0 Thousand/uL	
RED BLOOD CELL COUNT	4.65		3.90-5.50 Million/uL	
HEMOGLOBIN	12.1		11.3-14.1 g/dL	
HEMATOCRIT	36.7		31.0-41.0 %	
MCV	78.9		70.0-86.0 fL	
MCH	26.0		23.0-31.0 pg	
MCHC	33.0		30.0-36.0 g/dL	
RDW	13.1		11.0-15.0 %	
PLATELET COUNT	374		140-400 Thousand/uL	
MPV	9.1		7.5-12.5 fL	
ABSOLUTE NEUTROPHILS	2138		1500-8500 cells/uL	
ABSOLUTE LYMPHOCYTES	4478		4000-10500 cells/uL	
ABSOLUTE MONOCYTES	389		200-1000 cells/uL	
ABSOLUTE EOSINOPHILS	144		15-700 cells/uL	
ABSOLUTE BASOPHILS	50		0-250 cells/uL	
NEUTROPHILS	29.7		%	
LYMPHOCYTES	62.2		%	
MONOCYTES	5.4		%	
EOSINOPHILS	2.0		%	
BASOPHILS	0.7		%	
LACTIC ACID, PLASMA	1.2		0.4-1.8 mmol/L	IG
AMMONIA (P)	43		< OR = 72 umol/L	RGA
ALPHA MELANOCYTE STIMULATING HORMONE	17.5		0-100.0 pg/mL	SF1

Alpha Melanocyte Stimulating Hormone (Alpha MSH)

This test was developed and its analytical performance characteristics have been determined by Pan Laboratories, Irvine,CA. This assay has been validated pursuant to the

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CLIA regulations. It has not been cleared or approved by the U.S. Food and Drug Administration.

PERFORMING SITE:

BCS VERSITI WISCONSIN,INC, 638 N 18TH STREET, MILWAUKEE, WI 53233-2121 Laboratory Director: MATTHEW W ANDERSON,MD,PHD, CLIA: 52D1009037
EZ QUEST DIAGNOSTICS/NICHOLS SJC, 33608 ORTEGA HWY, SAN JUAN CAPISTRANO, CA 92675-2042 Laboratory Director: IRINA MARAMICA,MD,PHD,MBA, CLIA: 05D0643352
IG QUEST DIAGNOSTICS-IRVING, 4770 REGENT BLVD., IRVING, TX 75063-2445 Laboratory Director: ROBERT L BRECKENRIDGE,MD, CLIA: 45D0697943
MYM MAYO CLINICAL LABORATORIES, 3050 SUPERIOR DRIVE NW, ROCHESTER, MN 55901-1770 Laboratory Director: WILLIAM G MORICE II,MD,PHD, CLIA: 24D1040592
RGA QUEST DIAGNOSTICS HOUSTON, 5850 ROGERDALE ROAD, HOUSTON, TX 77072-1602 Laboratory Director: ROBERT L BRECKENRIDGE,MD, CLIA: 45D0660150
SF1 PAN LABORATORIES, 15375 BARRANCA PARKWAY E-101, IRVINE, CA 92618-2217 Laboratory Director: ALAN N ELIAS,MD, CLIA: 05D2051927