

## **Fungal overgrowth but not invasive Candidiasis**

This case is of a 46 year old female who is overweight and poor muscle tone. She presents herself originally for severe headaches of a chronic nature. They are modified with improvement with pressure and with the use of Prednisone. This issue began at age 25. We insert the following narrative from the attending doctor:

“The excessive weight gain began some six years earlier with accompanying hair loss; gum disease with bone loss and bleeding; an intolerance to heat; irritability of an explosive nature.

She was Dx with IBS some twenty four years earlier.

She has been Dx by MRI with arthritis of the Cervical spine. She suffers from pain of lower back, hips, and knee; hemorrhoids; dizziness, loose stool and sticky; skin rashes at folds; spots in the visual field; burning reflux; leucorrhea, white; Dx cervical dysplasia; menses irregular with cramps, clots, and heavy flow; respiratory sighing; shortness of breath; sense of elevated body temperature; fatigue; sense of heat in head; insomnia where she wakes unrested and has restless sleep; dry mouth; a sense of heaviness of the body; and stiffness of the neck and shoulders. Her mental status is with significant depression. She has a maroon tongue with a red perimeter and dry, and her pulse is rapid (90) and weak.

I have diagnosed this case as a deficiency of chi and damp accumulation in the middle jiao. This translates to a systemic weakness of the functional capacity of the organism likely of a metabolic nature and an underlying problem of fungus, notably in the LI.

She had been taking Topamax, Amytriptylline, Prednisone, and many supplements. Her basil temperature is 98.6 and her BP is slightly elevated 132/94 and a BS of 127.

She is currently not taking any pharmaceuticals nor supplements. Her headaches, sleep, and emotional condition are all stabilized.

I have treated her with some herbal compositions to stabilize the emotions, and to resolve the headaches. I have followed up with an herbal composition to treat the digestive system and the bowels. I have in addition given to her a homeopathic drainage protocol to clear the Humoral aspect and a second homeopathic to treat the fungal condition.

From the results of the Organix test I am adding a B complex, CoQ10, Essential Minerals, and Amino Acids to her protocol.

The patient has a dysfunctional relation with her children wherein she has recently had to have her son, who is 16, placed in a confined environment, initially in Idaho and moved from there to Jamaica. She is very pleased to have experienced a relief from her acute clinical expressions and has a good attitude respecting the process of acquiring good health.”

The first page of the Organix profile below has elevations of markers for deficiency of CoQ10, thiamin, riboflavin, biotin, folate, and vitamin B12. Although these abnormalities present evidence for nutrient supply issues, there is nothing particularly unusual about the findings, and they do not offer explanation for the severity of symptoms in this case.

**0091 Urine Organix Profile**

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

This report is not intended for the diagnosis of neonatal inborn errors of metabolism.

**Patient Population Ranking  
Quintile**

1st	2nd	3rd	4th	5th
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**NUTRIENT MARKERS**

**Fatty Acid Metabolism**

(Carnitine & B2)

	Results	Reference Limits	
1 Adipate	6.2	<= 8.4	
2 Suberate	3.8 <b>H</b>	<= 2.7	
3 Ethylmalonate	6.8	<= 12.0	

**Carbohydrate Metabolism**

(B1, B3, Cr, Lipoic Acid, CoQ10)

4 Pyruvate	3.4 <b>H</b>	<= 2.8	
5 Lactate	15.9 <b>H</b>	2.0 - 11.0	
6 β-Hydroxybutyrate	6.8 <b>H</b>	<= 4.5	

**Energy Production (Citric Acid Cycle)**

(B comp., Q10, Amino acids, Mg)

7 Citrate	897 <b>H</b>	175 - 850	
8 Cis-Aconitate	104	50 - 118	
9 Isocitrate	94	40 - 100	
10 α-Ketoglutarate	28.5	2.0 - 30.0	
11 Succinate	9.0	2.0 - 21.0	
12 Fumarate	2.2 <b>H</b>	<= 1.0	
13 Malate	1.5 <b>H</b>	<= 1.4	
14 Hydroxymethylglutarate	4.3	2.0 - 8.2	

**B-Complex Vitamin Markers**

(B1, B2, B3, B5, B6, Biotin)

15 α-Ketoisovalerate	1.8 <b>H</b>	<= 0.8	
16 α-Ketoisocaproate	0.8 <b>H</b>	<= 0.5	
17 α-Keto-β-Methylvalerate	3.3 <b>H</b>	<= 1.4	
18 Xanthurenate	2.1 <b>H</b>	<= 1.0	
19 β-Hydroxyisovalerate	17.4 <b>H</b>	<= 11.0	

**Methylation Cofactor Markers**

(B12, Folate)

20 Methylmalonate	5.4 <b>H</b>	<= 4.8	
21 Formiminoglutamate	0.23 <b>H</b>	<= 0.16	

On the second page of the Organix report, the high sulfate with normal α-hydroxybutyrate and pyroglutamate indicates increased hepatic sulfation, and the flow of toxins from yeast is a potential initiator of this response.

The yeast-specific marker, D-arabinitol, is extremely elevated. Although the detailed studies of this condition have focused on immunocompromised individuals at high risk for severe invasive candidiasis, the extant data also shows that mucocutaneous candidiasis produces high levels of the marker.

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**CELL REGULATION MARKERS**

Neurotransmitter Metabolism Markers

(Tyrosine, Tryptophan, B6, antioxidants)

	Results	Reference Limits	
22 Vanilmandelate	3.3	0.8 - 5.8	
23 Homovanillate	6.6 <b>H</b>	1.0 - 6.5	
24 5-Hydroxyindoleacetate	5.4	1.5 - 7.6	
25 Kynurenate	4.5 <b>H</b>	<= 4.0	
26 Quinolinate	3.8 <b>H</b>	<= 3.5	

Oxidative Damage and Antioxidant Markers

(Vitamin C and other antioxidants)

27 p-Hydroxyphenyllactate	0.66	<= 0.73	
28 8-Hydroxy-2-deoxyguanosine	0.11	<= 0.11	

**TOXICANTS AND DETOXIFICATION**

Detoxification Indicators

(Arg, NAC, Met, Mg and antioxidants)

29 2-Methylhippurate	0.078 <b>H</b>	<= 0.074	
30 Orotate	0.6	<= 1.1	
31 Glucarate	71	<= 149	
32 a-Hydroxybutyrate	8.2	<= 11.0	
33 Pyroglutamate	14.7	<= 16.0	
34 Sulfate	640 <b>H</b>	180 - 430	

Intestinal Dysbiosis - Bacterial

(Gly, Gln, Probiotics, & Antibiotics)

35 Benzoate	5.82 <b>H</b>	<= 5.10	
36 Hippurate	415 <b>H</b>	<= 280	
37 Phenylacetate	0.15 <b>H</b>	<= 0.14	
38 Phenylpropionate	0.06	<= 0.07	
39 p-Hydroxybenzoate	0.6	<= 1.1	
40 p-Hydroxyphenylacetate	44	<= 45	
41 Indican	80	<= 86	
42 Tricarballylate	0.8	<= 1.3	

Intestinal Dysbiosis - L. acidophilus

(Carbohydrate malabsorption)

43 D-Lactate	1.0	<= 1.9	
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Intestinal Dysbiosis - Clostridial

(S. boulaardii)

44 Dihydroxyphenylpropionate	0.3	<= 0.8	
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Yeast / Fungal

45 D-Arabinitol	1,537 <b>H</b>	<= 73	
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Creatinine = 56 mg/dl

Although one can not make a diagnosis of candidiasis from such a finding of urinary elevation, the evidence strongly suggests that yeast overgrowth is present. The flow of yeast products that must be detoxified places a burden on hepatic function that might be improved by sulfur amino acid intake. The resulting changes in intestinal microbial populations can contribute to the failure of biotin supply from bacterial synthesis. The usual approach to remediation is to add nutrient supplementation to overcome the insufficiencies and use antifungal approaches to reduce yeast populations.