



CASE STUDY: **CANDIDA** -Enzyme Therapy Protocol-

Candida albicans is a form of yeast and one of the many organisms that live in the human mouth and GI tract. Under normal circumstances, *C. albicans* live symbiotically in 80% of the human population with no harmful effects. An overgrowth results in candidiasis, usually occurring in moist areas of the body such as the mucosal linings of the the oral cavity, the respiratory system, or the genitalia. In the mouth, this may appear as a creamy white coating on the tongue or as sore raised yellow patches on the walls of the mouth. On the skin or genital area, a red itchy rash may appear, accompanied by vaginal discharge and discomfort during urination or intercourse.

Research from the past few decades tells us that the gut bacteria are essential to a healthy immune system, optimal digestion, mood, metabolism, and more. When gut flora are compromised, *C. albicans* and other opportunistic pathogens can rapidly spread and take over the gastrointestinal tract, vaginal canal, oral cavity, and other mucus rich areas. The yeast and bacteria can actually break down the cell wall of the gut, leading to leaky gut and therefore the development of food intolerances and autoimmune disease flares.

Candidiasis may occur after an individual has completed a course of antibiotics, as the use of antibiotics may kill “friendly” (beneficial) bacteria that usually keep the candida fungus in check. Additionally, the use of birth control pills may also disturb the normal pH of the body, which can exacerbate the condition. Immunosuppressive drugs or any condition of compromised immune function may give rise to an infection. In the absence of a clinical condition, diets high in sugar are known to be common causes of candidiasis. Therefore, eating a healthy diet and maintaining a strong immune system and balanced gut flora are the best defenses. Poor dietary choices include foods containing high levels of sugar or with a high glycemic index, so nutritional recommendations involve avoiding sugary foods. Probiotics (healthy bacteria) are also suggested for this condition.

The present case study describes a client seen through Transformation Enzyme Corporation's research clinic with candida symptoms, with scoring on a candidiasis quiz indicating that *C. albicans* or other yeast were almost certainly present. Further confirmation was obtained via stool testing which indicated significant elevations of the yeast.

The symptoms were treated using Transformation's enzyme therapy protocol of enzyme, herbal, and probiotic supplements. The patient was also asked to make dietary and lifestyle adjustments which included specific nutritional interventions. The patient's symptoms and candidiasis quiz score had both noticeably improved at the followup assessment several months later.

MEDICAL HISTORY

The patient had taken antibiotics for 1 month or longer within the past 3-5 years and has taken birth control pills and prednisone or other cortisone-type drugs in the past. She has a history of athlete's foot & or other chronic fungal infections of the skin or nails as well as neuropathy, i.e., numbness, burning, or tingling, "pins and needles" feeling that was exacerbated upon consumption.



On a candidiasis symptom/lifestyle quiz of conditions she was currently experiencing, the patient indicated 'Yes' to the following:

- Mood changes or depression
- Anxiety, excessive worrying
- Muscle aches or pain in joints
- Loss of libido
- Cold extremities (hands or feet)
- Blood sugar irregularities
- Irritability or jitteriness
- Headaches
- Cough or tightness in chest
- Food sensitivity or intolerance
- Rectal itching
- Thrush in mouth or dry mouth
- Constant foot, body, or hair odor
- Food fear due to prolonged restrictive diet

LAB TESTING

A stool test was performed following subject's initial visit. Stool test results confirmed a significant overgrowth of candida poor gut diversity, significant gut inflammation, digestive insufficiency, malabsorption, short chain fatty acid deficiency, and intestinal permeability. All of these findings were considered when determining diet and supplement protocol.

MANAGEMENT AND TREATMENT

Prior to being seen through the Transformation™ clinic, the client had worked with other practitioners and was on a total of sixteen different supplements. She had also been following a candida diet for 3 months prior to being seen in the Transformation™ clinic with little change in symptoms.

The goal of our clinical interventions was to decrease and simplify her protocol and liberalize her diet to prevent disordered eating behaviors and food fears that can develop with long term avoidance of foods.

Since the supplement protocol was not as heavy in antimicrobials prior to being seen through the Transformation™ clinic, it was determined that the candida diet be continued for 6 more weeks in conjunction with the revised protocol listed below. After six weeks, if improvements were seen, the client's diet would be gradually liberalized to paleo as tolerated.

At meals:

- 2 caps DIGEST digestive enzyme formula to aid in the proper digestion and absorption of all nutrients supporting pH balance, a healthy GI tract, and a strong immune system.
- 1 cap PROTEASE for additional protein and inflammatory support.
- 1 cap LIVER SUPPORT enzyme-delivered herbal, nutrient, and N-acetyl cysteine formula twice daily to combat candida die-off and release of toxic metabolites into the bloodstream.
- 1 cap INTESTINAL SUPPORT enzyme-delivered herbal, nutrient, and caprylic acid formula to eliminate growth and prevent recurrence of invading organisms while supporting the immune system, and help restore the body to a state of health and vitality.
- 3 caps ESSENTIAL FATTY ACIDS to help reduce inflammation caused by candida overgrowth. Essential fatty acids are required in all detoxifying functions of the liver, all cellular membranes which is where the majority of cellular reactions occur, and nerve and brain tissue repairs.

Between meals:

- 2 caps PROTEASE at rise, midday, and bedtime to help promote biofilm degradation, optimal blood flow, and efficient detoxification as well as help manage inflammation and immune function.
- 1 cap PROTEASE IFC at rise, midday, and bedtime to provide additional antioxidants to regulate inflammation and further support detox.

- 1 cap Designs for Health's Amino-D-Tox™ at rise, midday, and bedtime. Phase 2 liver support was brought in after 1 month of protocol. This was selected to further support the liver for phase 2 detoxification. Providing nutritional support for phase 2 detoxification helps conjugate toxins and prepare them for safe elimination from the body rather than activating dormant toxins as the system is already overwhelmed from the yeast die-off.
- 2 caps TRANSBIOTIC™ at bedtime. This spore-based, prebiotic free probiotic was selected due to the immune enhancing benefits of the spore *bacillus subtilis* along with the bacteriophages that clean up bacteria overgrowth in the gut and are beneficial for those who have difficulty tolerating the typical prebiotics used in most probiotic formulas.

Additional recommendations:

The following products were brought in due to the resistant nature of the candida presenting in this individual. We wanted to not only impact the gut microbiome but also address the microbial imbalance that was visibly seen in the mouth of the participant. Use of the broad-spectrum botanicals in Dentalcidin™ and Metagenics™ products can assist in removing biofilms and plaque while also help to promote and maintain healthy teeth and gums.

- Dentalcidin™ LS Liposomal Oral Care each morning
- Dentalcidin™ at bedtime
- Metagenics™ Candibactin-BR® includes berberine hydrochloride and extracts of Oregon grape and coptis to support healthy immunity, detoxification, and elimination by encouraging a healthy intestinal environment and detoxification through the liver and gallbladder.
- Metagenics™ Candibactin-AR® includes a blend of concentrated essential oils and herbal extracts to help balance hormones and provide additional antimicrobial support by encouraging intestinal microbial balance and healthy digestion. The oil of oregano, thyme, and lemon balm in this formula are also known for beneficial effects on female hormonal balance which was one of the more prominent symptoms the subject was experiencing.

RESULTS



After 3 months, the patient's followup quiz responses no longer indicated the following symptoms, meaning they had resolved:

- Anxiety, excessive worrying
- Blood sugar irregularities
- Irritability or jitteriness
- Headaches
- Cough or tightness in chest
- Rectal itching
- Constant foot, body, or hair odor

Pain on the tongue and overall appearance of thrush on tongue had significantly improved, and the patient was able to liberalize her diet to paleo and improve her relationship with food.

DISCUSSION

Candidiasis is a stubborn condition due to its complexity. The pathogen does not exist on its own without systemic imbalances in other areas of the body and without toxicity. All of these aspects need to be addressed to have final resolution.

Further investigation of the underlying cause of this patient's candida would be needed due to the inability to completely alleviate growth on the tongue and other symptoms. For example, it was recommended that the patient consider heavy metal and mold testing. Candida biofilms absorb metal cations from their surroundings, and this sequestration in the biofilm routinely contributes to treatment resistance and the ability to thrive. As it has been tested and proven that candida thrives in heavy metal-polluted environments, this could explain the extreme resistance seen in this instance.

Overall, the patient was very pleased with the outcomes of the protocol and feels much better. Appearance of candida on the tongue had improved significantly, with nearly 85% eradicated. Patient's overall symptoms score also notably improved though not completely eliminated. It was recommended that the subject continue on Transformation's Healthy Gut Program which consists of digestive and proteolytic enzymes, probiotic, and liver and inflammatory support products, and move forward with further testing to rule out heavy metal toxicity.

She was referred to a hormone specialist for further testing to discern if hormone therapy could be a possible solution. She was also placed on a new protocol more focused on intestinal permeability to repair damaged caused by years of candida overgrowth. Upon completion of "leaky gut" protocol, new stool sample will be performed.

For more information, please contact:

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