

Candidiasis essay



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Diseases and sicknesses have always been prevalent in today's society due to a vast mixture of factors and elements. For decades, people have been battling with all sorts of disorders, making every move to make their life safe and clean as possible. These sicknesses may come in different forms, and it is usually the knowledge of the disease itself that creates a stepping stone in creating cures. Out of a number of infections affecting people worldwide, nothing is as wild spread as yeast infections.

The potentials of these organisms are almost limitless: having the ability to quickly divide, capable of living on limited resources, extremely resistant to certain environmental conditions, and simply being unnoticeable in the early stages. Although a number of yeast species have been pinpointed to cause different diseases, there is one that plays the role of a plague in today's society. It is the yeast species *Candida albicans*, commonly termed *Candida*, and causes the dreaded fungal disease Candidiasis.

Candidiasis, or a type of it, was first described centuries ago together with other yeast infections. Pioneers in medicine, such as Hippocrates back in 400 B. C. , mentioned about women being plagued with fungal problems. Until some decades back, candidiasis remained a mystery, as with other fungal disorders. It is primarily due to the lack of external manifestations that would characterize the disease. The host, *Candida albicans*, is a common dweller in a human body, and their numbers are being maintained by the immune system and by colonies of unharmed bacteria (Calderone 10).

Naturally, their controlled population poses no harm to the human being. Because of this, early outbreaks of this is almost unnoticeable, and the

symptoms were once unknown. It was only in 1969 when the world became totally aware of the disease and its cause. A physician by the name W. Krause, revealed the capability of *Candida albicans* to travel around the body with little or no effort at all. He did it by drinking an entire culture of the yeast, and as expected, gained the symptoms of yeast infections.

Candida albicans were then cultured from the doctor's blood and urine samples. This shows the possibility of the yeast to cross certain borders when overpopulated, and cause infections on several sites (Goldberg et al. 618). Following this, in 1978, a certain Doctor Orion Truss described an in-depth relationship between the *Candida albicans* and the disease Candidiasis. Being a specialist in allergies and internal medicine, Dr. Truss was able to characterize the host and the disease it carries (Saxion 7). As mentioned above, the yeast *Candida* is common in a human's body.

It resides in the digestive tract, but can migrate to other places such as the esophagus, mouth, genital areas, and even in the lungs. While they are strictly maintained by the immune system and other bacteria, the problem starts when they divide so rapidly in an anaerobic condition. But what makes them do so? One possible factor for a *Candida* overgrowth is the extended use of antibiotics. Antibiotics, although intended for bad bacteria, can also kill the colonies responsible in maintaining *Candida* population (Bodey 200).

The longevity of the drug in the bloodstream can also cause a drop in pH, which favors the reproduction of the yeast (Saxion 11). Some doctors also relate contraceptives and other steroids as a cause of *Candida* overgrowth. These drugs lower the immune system, another factor that controls the

population of the yeast (Saxion 11). Diet is also seen as a main factor affecting yeast infections. Food having low fiber and much refined sugar creates a suitable environment for yeast growth.

The sugars are very much needed by yeast, and the low fiber content inhibits proper colon cleaning (Saxion 12). Also, other diseases that affect the immune system can directly lead to Candidiasis. HIV for example, targets on the destruction of the very much needed cells for a proper immune response. This weakens the immune system, and gives way for *Candida albicans* to grow (Warrell et al. 531). Generally, an improper lifestyle, one that causes an imbalance on the natural bacterial flora and the immune system of the body can lead to an increase yeast population.

Once the *Candida* start proliferating, they begin to release toxins in the bloodstream. The yeast species is an anaerobic organism, one that respire without oxygen. In the process of doing so, it produces a number of peptides that are harmful to a human being and results to the common symptoms of Candidiasis. Among these affects the digestive system, such as constipation, diarrhea and colitis. Having an overgrowth of *Candida* on the genital areas can also lead to discharges, and discomforts in urination and intercourse.

Itchiness is also common on affected areas, and redness and swelling may occur due to inflammation of affected tissues (Saxion 8; Kilmartin 156). Once it reaches the oral cavity, the disease becomes commonly known as thrush. The proliferating colonies become distinctively present, and irritation occurs in times of swallowing and chewing (Kilmartin 157). Presently, the most

effective treatment is the use of anti-fungal drugs such as nystatin and amphotericin. Oral application is sufficient in normal conditions.

Under severe and chronic infections, intravenous application is necessary. Candida may also cause endocrine malfunction, and on such cases endocrine replacement should be administered to avoid complications. But of course, as with all diseases, prevention is ultimately better than cure. Having a proper diet and maintaining a balanced lifestyle would always deter the need for medications and treatment. It is also a plus to be aware of the symptoms of this, and to know the steps needed to be done in cases of infection.