The Anti-Fungal Parade *(medication)*

Candida (or similar yeast overgrowth) is a common problem in chronic ill-health. One problem with these various yeast organisms is there growing resistance to antifungal medication. Just like bacteria that develop resistance to antibiotics, candida *(and other forms of yeast)* can develop resistance as well. One reason for this problem is the aggressive nature of these organisms from a commensal to invasive nature.

Most of the various forms of Candida (and certain other forms of yeast) live in harmony in small amounts in our digestive system (aka. commensal). They are a natural part of our environment and the eco-environment of our guts kept in check by other natural bacteria (referred to as "natural flora"). However, when our immune resistance is down or the natural flora is disturbed (e.g. prolonged antibiotics) these commensal yeast can start to flourish beyond their normal levels. If left untreated this overgrowth of yeast can become invasive. What this means is the yeast starts to change form and begin to embed itself into the lining of the gut – in essence it starts to grown roots. The longer it is left untreated the more invasive it becomes. It is difficult to tell many times what treatment is going to work the best for any particular yeast overgrowth problem. The common antifungal medication called Nystatin works very well - many times dramatically. At other times having to use a variety of antifungal medication is needed.

Dr. Sidney Baker, a well-known and respected integrative medicine physician, coined a phrase called the "antifungal parade" for a treatment approach for chronic cases of yeast overgrowth. What this treatment regimen involves is using various antifungal medications on a rotation basis to determine which one works the best and also to avoid drug resistance. Listed below is an example of my antifungal parade modified from Dr. Baker's original recommendation. The list of therapies is only an example and can be modified based on specific need, availability of medication, and tolerance. I have only listed prescription medication for simplicity sake, but understand that natural antifungals such as grapefruit seed extract, olive leaf extract, oregano oil, etc. can be used as well.

Anti-Yeast Treatment Program:

Most of these medications can be obtained via prescription from your local pharmacy. However, the oral Amphotericin B will need to come from a compounding pharmacy. Compounding pharmacies are specialized at making their own formulations of medications from bulk supply. They are more adept at making special formulations of oral suspensions and other blends that are preservative-free.

The dosages listed are those commonly given to adults, and the amounts can be modified for children (although some of the dosages are fairly similar). If you are seeking oral suspensions for these medications the use of a compounding pharmacy may have to be employed as only a few medications come standard as both capsule/tablet or liquid.

- Nystatin Tablet (500,000 units) – one 3x daily for 10 days, then double the dose for 10 days, then switch to:
- Diflucan 200mg – one daily for 10 days, then double the dose for 10 days, then switch to:
- Amphotericin B 250mg - 4x daily for 10 days, then double the dose for 10 days, then switch to:
- Lamisil 250 mg – one daily for 10 days, then double the dose for 10 days, then switch back to Nystatin.
- Nystatin Tablet (500,000 units) – one 3x daily for 10 days, then double the dose for 10 days, then switch to:
- Sporanox 100mg – one 2x daily for 10 days, then double the dose for 10 days, then switch to Amphotericin B:
- Amphotericin B 250mg - 4x daily for 10 days, then double the dose for 10 days.

NOTE: For the systemic antifungals, Diflucan, Lamisil and Sporanox, I would recommend using smaller dosages than those listed here. A 1/3 to 1/2 the amount is fine. For example, 100mg of Diflucan instead of 200mg. For the Nystatin dose at 500,000 units, I find this dosage well tolerated for even children, and the Amphotericin B a ½ dose at 125mg would be okay.

Finally, another option with this program is to do one antifungal per month. For example, Nystatin, then Diflucan, then Amphotericin B, then Lamisil, etc. Sometimes this is easier when having to refill the medications which are commonly dosed on a 30-day supply, and most insurance companies only pay for medications in 30-day increments.

This program can typically be repeated over and over again if needed. Periodic blood work for liver function is warranted, but much less of an issue because you are only taking a systemic antifungal, e.g. Diflucan, Sporanox or Lamisil for only 3 weeks at a time. Usually, if any of these medications are taken for longer than 6 to 8 weeks at a time liver function tests need to be checked. The non-systemic antifungals of Nystatin and Amphotericin B do not require blood work analysis as they do not get absorption into the bloodstream and only stay local in the digestive system.

The antifungal parade allows for a lot of flexibility with respects to antifungal medication options. You can start anywhere on the list. The point is you keep rotating from one to the other. A few additional things need to be made clear. One is that if you or your child is getting good results from a particular medication it may not be the advisable to switch. If something is working it is okay to stick with it. The last comment is that some of these medications will need prior authorization from your insurance company if going through a standard pharmacy and/or if you are trying to use insurance for co-pay. Usually, Sporanox and Lamisil are the tougher ones to get while I have not seen much problem with Nystatin or Diflucan. Amphotericin B is only available in oral form from compounding pharmacies so this one is usually not available via insurance copay anyway