THRUSH – PRACTICAL MANAGEMENT CONSIDERATIONS

Patricia Hatherly IBCLC

Candida albicans, more commonly known as thrush, is the clinical manifestation of a proliferation of yeast organisms which normally inhabit the body's mucous membranes.

It's been around for a while!
Hippocrates and Galen both made reference to clinical manifestations of thrush in debilitated patients. Textbooks of paediatrics in the 1700s have described thrush and the first intra-uterine acquisition of thrush was recorded in the 1800s.

Candida infections of the nails were first described in 1904, skin disease in 1907 and candida cystitis in 1910. By the 1940s it became evident that candidiasis was the most common infecting agent of the skin, mucosa and vagina. Its role in systemic disease, however, was not noted until the late 1970s.

Although yeasts are normally found in the body, they are rarely a problem unless the immune system is weakened in some way. Candida is, however, less apt to attach to vaginal epithelial cells when the pH of the vagina is acidic, and more apt to attach when it is neutral. Therefore, the hormonal changes associated both with the normal monthly cycle and pregnancy, tend to make women more vulnerable to infestation.

Stresses related to coping with life in the 1990s, diets rich in sugar and yeasts, and birth control pills all contribute to weakening normal immune responses. However, broad spectrum antibiotic drugs play the major role in lowering general immunity. This often can place the individual on a treadwheel whereby she succumbs to infections which necessitate antibiotic treatment often leading to further lowering of immune status.

Candida proliferation in the bowel is particularly likely in this instance due to the alteration of intestinal flora as a direct result of antibiotic therapy. Studies suggest that there is also a decrease in secretory IgA which increases susceptibility to mucosal colonisation by potentially pathogenic organisms thereby allowing an increased uptake of highly antigenic intestinal contents. Subsequent increases in food intolerance or allergic reactions complicates this situation as these may then flow onto the baby via the breastmilk, as a result of this lowering of the mucosal defence system.

When a mother presents with persistent sore nipples often, though not always, associated with deep radiating breast pain, thrush infection is likely. The nipples and areola in this instance tend to be red and inflamed. The nipples may also be itchy or flaking. And they may, or may have had, evidence of cracking.

Often the baby, who has been infected while coming through the birth canal, has reliable signs of thrush infection evident in his mouth. These include white patches surrounded by diffuse redness. The baby may also (or instead) show evidence of a perianal rash which may even spread up the trunk. The baby, however, may be asymptomatic in this regard. Instead, he may merely present with sucking difficulties caused by pain in the oral cavity during feeding.

In order to ascertain the likelihood of candidiasis, the practitioner should seek the following information:

* Have you recently had antibiotic therapy?

* Have you been using cortisone, prednisone or other corticosteriods?

* Have you been troubled by recurrent vaginal yeast infections or other disorders involving the reproductive or urinary system?

* Do you suffer from current or recurring fungal infections of the skin; particularly of the foot, hands or perianal region?

* Are you bothered by persistent digestive symptoms such as: heartburn; indigestion; bloating; abdominal pain; flatulence; constipation or diarrhoea?

* Are you bothered by damp days and mouldy places?

* Are you bothered by the ingestion of foods & drinks such as breads and sugars, which are associated with yeast growth ?

* Was your baby given a bottle or dummy while in hospital?

* If you use a bottle or dummy, which method of sterilisation do you use?

Early lesions in a newborn can be treated by rinsing the mouth with water subsequent to each feed so that there are no curds on which the fungi can thrive. Although changes in pH can offset the chances of candida infestation, sodium bicarbonate is not seen to be more effective than plain water, and is not recommended because of the risk of hypernatremia. However, in less severe cases, a home treatment may consist of having a mother bathe her nipples after each feed in a solution of 1 teaspoon of bicarbonate of soda to 1 cup of water which has been boiled for 20 minutes. The baby is not at risk of increased sodium intake if the mother then follows this treatment by thoroughly bathing her nipples with sterile water. The expression of hind milk, which is then massaged gently into the nipple and areola area, completes the treatment. If the breasts are then left exposed to air, this hind milk can be left to dry on the nipple. However, if the breast is to be `put away' (and especially if a bra pad is used), it would be best to quickly dry this application of hind milk with a hair dryer. Furthermore, a weak solution of borax and water applied under similar conditions as outlined above, may also be useful as a home treatment of candidiasis.

Indirect exposure of the nipples to sunlight, at least twice a day, is also recommended. If this is not possible, or desirable, infra - red sunlamp treatments which involve exposure of the breasts for small, incrementally regulated amounts of time, up to a period of five minutes, are also helpful in reducing the irritation and soreness. Some mothers find that treatment of the nipples with an aqueous solution of .05% Gentian Violet, although messy, is also often effective. This can be specially prepared by a Pharmacist.

Persistent or entrenched cases of candida infestation, however, need more thorough treatment. Lactation consultants would recommend topical application of an antifungal preparation on all sites of infection is necessary. And, depending on the case history, this may need to be followed up by simultaneous, systemic treatment of both the mother and baby.

Other measures which help in reducing infestation include:

* Isolating all orifices to prevent cross infection. (This will often include the use of a sterilised nipple shield during feeds, especially if there is a crack; the use of plastic, disposable gloves during nappy changes, and the subsequent use of a specifically fungicidal antiseptic, especially if there is evidence of fungal infestation of the fingers, and the use of a condom.)

* Regarding the breast as temporarily `out of bounds' to your partner during infestation.

* Using a clean towel and washer for every shower, and taking care with cross infection from vagina to nipple.

* Wearing cotton underpants or none at all; and avoidance of the wearing of pantihose or step-ins, and most especially, jeans as these promote the moist conditions upon which the fungi thrive.

* Boiling underwear and bra pads and drying them in sunlight. Bra pads should be changed at each feed, and care should be taken when removing them as the uppermost layer of the nipple epithelium may become damaged during removal.

* Boiling all nappies and towels and leaving them to sun-dry for as long as possible.

* Sterilising daily all teats, dummies teething rings etc. These should all be replaced after one week.

* Changing baby's nappy frequently and allowing him to go without a nappy for as much as possible.

* Following a yeast free diet during the period of infestation, may hasten recovery; as also may a minimal disaccharide diet under the supervision of a Dietician or a Clinical Nutritionist.

BIBLIOGRAPHY

CROOK, William G.	*The Yeast Connection* Professional Books, Jackson, Tennessee 1988
LAWRENCE, Ruth A.	*Breastfeeding : A guide for the medical profession* The C.V.Mosby Company, St.Louis 1989
NMAA	Resource Paper *Thrush*
OSIECKI, Henry	*The Physicians Handbook of Clinical Nutrition* Bioconcepts Publishing, Kelvin Grove 1990
RIORDAN, Jan	*A Practical Guide to Breastfeeding* The C.V.Mosby Company, St.Louis 1983
WORTHINGTON-ROBERTS, Bonnie RODWELL WILLIAMS. Sue	*Nutrition in Pregnancy and Lactation* Times Mirror/Mosby College Publishing St Louis 1989

This paper was presented at the CAPERS Conference : ***Breastfeeding Issues for the 1990s*** Brisbane May 1991

MEASURES WHICH HELP TO REDUCE INFESTATION WITH THRUSH

1 ISOLATE ALL ORIFICES TO PREVENT CROSS INFECTION.
THIS WILL OFTEN INCLUDE THE USE OF:
A STERILISED NIPPLE SHIELD DURING FEEDS, ESPECIALLY IF THERE IS A CRACK;
THE USE OF PLASTIC, DISPOSABLE GLOVES DURING NAPPY CHANGES AND THE SUBSEQUENT USE OF A SPECIFICALLY FUNGICIDAL ANTISEPTIC, ESPECIALLY IF THERE IS EVIDENCE OF FUNGAL INFESTATION OF THE FINGERS;
THE USE OF A CONDOM.

2 REGARD THE BREAST AS TEMPORARILY `OUT OF BOUNDS' TO YOUR PARTNER DURING INFESTATION

3 USE A CLEAN TOWEL AND WASHER FOR EVERY SHOWER, AND TAKE CARE WITH CROSS INFECTION FROM VAGINA TO NIPPLE.

4 WEAR COTTON UNDERPANTS OR NONE AT ALL; AND AVOID WEARING JEANS, PANTIHOSE OR STEP-INS AS THESE PROMOTE THE MOIST CONDITIONS UPON WHICH THE FUNGI THRIVE.

5 BOIL UNDERWEAR AND BRA PADS AND DRY THEM IN THE SUNLIGHT.
BRA PADS SHOULD BE CHANGED AT EVERY FEED. CARE SHOULD BE TAKEN WHEN REMOVING BRA PADS AS THE UPPERMOST LAYER OF THE NIPPLE EPITHELIUM MAY BE DAMAGED. EXPRESSING SOME MILK INTO THE PAD MAKES REMOVAL EASIER.

6 BOIL ALL NAPPIES AND TOWELS AND LEAVE TO SUNDRY FOR AS LONG AS POSSIBLE.

7 ALL TEATS, DUMMIES, TEETHING RINGS ETC SHOULD BE STERILISED DAILY AND REPLACED WEEKLY. IF USING THE BOILING METHOD OF STERILISATION, BOIL ITEMS FOR 20 MINUTES.

8 CHANGE BABY 'S NAPPY FREQUENTLY AND ALLOW HIM TO GO WITHOUT A NAPPY FOR AS LONG AS POSSIBLE.

9 A YEAST FREE AND MINIMAL DISACCHARIDE DIET DURING THE PERIOD OF INFESTATION, MAY HASTEN RECOVERY.

Primary source: NMAA