

**AFRICAN WOMEN EXPERIENCING PERIMENOPAUSE:
URINARY TRACT INFECTION**

By

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This paper focuses on women in the poorer nations, such as in Africa, who experience perimenopause and are coping with symptoms associated with perimenopause. Perimenopause is a condition involving changes in the hormones that impacts women in their 20s, 30s, and 40s lasting 4-10 years (“Perimenopause Symptoms,” n.d.). The urinary tract infection (UTI), a symptom of perimenopause, has been reported to be result from the spread of various bacteria (Iregbu & Nwajiobi-Princewill, 2013). The reoccurrence of urinary tract infections (rUTIs) experienced by African women, when antibiotics are not effective and vaccinations are not protective, to underlying diseases may be evident after digesting the literature describing the hematogenous and ascending routes of the bacteria. Natural approaches will be presented to assist women who experience this symptom.

Urinary Infections and Diagnoses

Urinary tract infections may be characterized as “cystitis (bladder infection), pyelonephritis (kidney), urethritis (inflammation of the urethra, the tube that drains urine from the bladder)” (Cooper, 2003). While men and women of all ages may acquire complicated UTIs (cUTIs), non-pregnant women mostly experience uncomplicated infections for multiple reasons (Cornforth, 2011; Pallett & Hand, 2014; Pande, 2011). Most women are prone to develop UTI because of closeness of the pelvic and anus to the urinary organs as germs pass from one area to another (Duplessis, Warkentien, & Bavaro, 2011; Pande, 2011). The shortness of the female urethra tube allows bacteria and other infectious germs to enter into the urethra causing an infection of the urinary system, which consists of the kidney, bladder, and ureters (Pande, 2011).

Women who have or had a sexually transmitted disease experience an increase chance of having UTI (Pande, 2011). During the menstrual cycles when blood continuously flows, germs

replicate making women more susceptible to acquiring a sexually transmitted disease (Pande, 2011). In a 1991 study of nearly 3,325 males aged 20-39, approximately 660 had experienced anal sex with a female (CDC, 2005). In relations to the ascending route, “Urinary tract infections in women develop when uropathogens from the fecal [rectal] flora colonize the vaginal introitus and displace the normal flora (diphtheroids, lactobacilli, coagulase-negative staphylococci, and streptococcal species)” (Sobieszczyk, 2009, p. 2).

Unlike blood that is found in the urine while menstruating, blood may be found in the urine because of an unknown reason or underlying disease (Grossfeld et al., 2001). Hematuria derives from gross or microscopic blood in the urine (Grossfeld et al., 2001). Microscopic hematuria is mostly associated with affecting the kidneys, and gross hematuria is mostly associated with affecting the urinary tract (Grossfeld et al., 2001). Hematuria should not be confused with myoglobinuria whereby an excess of blood in the urine causing a cola-like hue result from the interference of oxygen to the muscle cells (David, 2000; Veerreddy, 2013). Hemoglobinuria, like myoglobinuria whereby no presence of solid renal masses or stones is identified, differs from hematuria or pseudohematuria (“non-pathological causes of discolored urine”) in that an iron deficiency is detected and no blood is found in the red to black colored urine (Farlex Partner Medical Dictionary, 2012; Veerreddy, 2013, p. 9).

Experiences of Women in Developing Nations

Women in Sub Saharan Africa have diverse health challenges, to include infectious diseases such as HIV (Hall, Thomsen, Henrisen, & Lohse, 2011). Women in Sub Saharan with diabetes and in Sudan who have undergone genital mutilation have a high prevalence of UTI (Hall et al., 2011; Hamdan, Ziad, Ali, & Adam, 2011). Nearly 15,000 women in Nigeria ages 17-24 (402), 25-32 (1997), and 33-40(438) yield the highest of several types of bacteria

including *E coli* (37%), *Klebsiella spp* (25%), and *Pseudomonas aeruginosa* (*P. aeruginosa*; 8.4%; Iregbu & Nwajiobi-Princewill, 2013).

E. coli. The most common pathogen is *Escherichia coli*, which are formed by multidrug-resistant organisms (Duplessis et al., 2011). Postmenopausal women, however, have a higher risk of acquiring UTI because of their depletion in lactobacillus (Duplessis et al., 2011). Lactobacilli found in healthy premenopausal women have the ability secrete hydrogen peroxide, which decrease the colonization with uropathogenic *E coli* (UPEC; Duplessis et al., 2011). Urine that contains Uropathogenic *E coli* cannot be released from the body because the projections on the *E coli* strands bind with proteins uroepithelial cells whereby toxin begins to secrete into the kidney (Duplessis et al., 2011).

Based on the 250 midstream urine specimen of men and women in one Nigerian teaching hospital, women aged 35-51 tested highest for *Escherichia coli* followed by the age group 18-34 (Akubuenyi et al., 2013). Perimenopausal women with a longstanding history of rUTI responded positively to LED 209, a small molecule that inhibits the pathogenic nature of UPEC (Moreira, Sperandio, Bacsu, Glover, & Zimmern, n.d.). Hormone replacement therapy was not found to be an effective means to approach UTI; however, diabetes was found to impact risk (Head, 2008).

The stats on African women with infections of the kidney (pyelonephritis), which is part of the upper urinary system, were not readily available in the literature. Research, however, on women in sub Saharan have a high rate of renal failure because of a lack of quality healthcare (Bamgboye, 2006). African medical researchers may consider documenting the signs for pyelonephritis, which is “typically causes fever, chills, malaise, flank discomfort, nausea/vomiting, and/or abdominal pain, with or without concomitant lower urinary tract signs” to share relevant data (Gibson & Toscano, 2012, p. 82).

Klebsiella spp. A female from Nigeria shared concerning methods to approach symptoms, “after the ‘spiritual healing’ fails, then women find their way to the hospital” (N. Kelley, email communication, January 20, 2014). Emphasis on this subject matter is thus critical--most infections are nosocomial that is acquired in hospital and nursing home settings (Mesaros et al., 2007). The nosocomial infection *Klebsiella* spp. is “naturally resistant to aminopenicillins (ampicillin and amoxicillin) and carboxypenicillins (carbenicillin and ticarcillin) and other penicillins but susceptible to most other b-lactam antibiotics” (Brisse, Grimont, & Grimont, 2006, p. 174). In developing countries such as Nigeria, antibiotics can be purchased over the counter and on the open markets (Chikwendu, Amadi, & Obi, 2010). In regards to the *Klebsiella* spp, the naval O-antigen immunization vaccine has been validated through clinical trials to have protective effects (Brisse et al., 2006).

P. aeruginosa. *P. aeruginosa*, also nosocomial, is “the third leading cause (12%) of hospital-acquired urinary tract infections” and is difficult to treat (Mesaros et al., 2007, p. 561). Although Ciprofloxacin has been found to be most effective antibiotics against *P. aeruginosa*, many types of infections have built a resistance to antibiotics and vaccinations have been ineffective (Chikwendu et al., 2010; Mesaros et al., 2007). Surgery may not be necessary for *P. aeruginosa* infections (Mesaros et al., 2007). Seeking natural approaches, thus, may be wise.

Suggestions to Approach Urinary Tract Infections

The following suggestions aim to help women, to include women in Africa or other nations, who experience UTI associated with perimenopause and are not aimed to diagnose, prescribe, treat, or cure. Natural techniques discussed in this paper aim to enlighten women on lifestyles and healthy living. An abundance of research points to drinking ample amount of

water and cranberry juice and participating in antimicrobial treatments to approach a UTI (Brisse et al., 2006; Gibson & Toscano, 2012; Head, 2008; Mesaros et al., 2007).

The King of Kings and Lord of Lords, however, commands, “Do not approach a woman to have sexual relations during the uncleanness of her monthly period . . . If a man has sexual relations with a woman during her monthly period, he has exposed the source of her flow, and she has also uncovered it. Both of them are to be cut off from their people” (Leviticus 18:19; 20:18). Refraining from sexual intercourse while experiencing a UTI may be an effective means to subdue inflammation and the spread of the infection.

Royal jelly or propolis, substances produced by Queen Bees and worker honey bees, has been reported to inhibit the growth of bacteria or to strengthen the uterine muscles (Fok, Pereira, Ferreira, Cunha, & Aguiar, 2010). The African Queen Bee only mates with a single drone of African worker bees laying 2,000 eggs per day during peak seasons (Barton & Doula, 2012; Schoeman, n.d.). During the reproductive stage of the Queen, the workers engage in practices promoting and resulting in food security and sustainability for the colonies (Schoeman, n.d.). Perimenopausal women, whose symptoms cannot be approached using natural remedies and are resistant to antibiotics, are highly recommended to seek additional medical care from a disease specialist or naturopathic doctor (ND).

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