

Community Based Alternative ways of Nutritional and Herbal Supplements used by Women to Manage Uterine Fibroids

¹Susan Aruwa, ²Andrew Opondo Otieno, ³Francis Owino Rew

¹Department of Community Health and Development, Great Lakes University of Kisumu, Kenya

²Uzima University, Kisumu, ³Jaramogi Oginga Odinga University of Science and Technology, Bondo

Abstract: In Alternative management of fibroids in the community, many plants have been used in traditional herbal medicines in an attempt to treat women with uterine fibroids. The plants and herbal formulations discussed in this study are used to shrink uterine fibroids. Other treatments are used to address abnormal bleeding, uterine cramping, urinary frequency and digestive problems. The herbal remedies are reported to slowly reduce the size of fibroids and control further growth of new ones, thus preventing the occurrence of complications caused by fibroids such as urinary problems, dysmenorrhea, anaemia due to prolonged heavy bleeding and other symptoms associated with it. With alternative therapies, the woman may avoid the surgical operation thus saving money and still continue with daily living activities and most importantly, saves the woman's fertility. The findings of study will close the existing knowledge gap on fibroid management at community level and provide knowledge on the available options available to women who do not wish to go for conventional methods of fibroid management.

Key Words: Nutritional and Herbal supplements

INTRODUCTION

There is growing evidence in all African communities of the efficacy and acceptability to herbal medicine. Herbs grow everywhere and are reasonably inexpensive to collect, depending on the type required for healing a particular disease. Herbal medicines are wholesome so that besides controlling and curing diseases or illnesses, they provide the body with nutrients. It is important to remember that human beings have depended on herbs for food and medicine since creation. Many of the world's plants have been used for food, treatments, prevention and cure of various diseases as well as keeping people healthy

EPIDEMIOLOGY

Fibroids are monoclonal in origin with variable molecular characteristics, it has been generally accepted that myomas are more prevalent in blacks than in Caucasian and Hispanic populations, although the cause of the higher prevalence among black women is unclear; differences in circulating estrogen levels have

been found. It is still unclear whether these ethnical differences are genetic or due to known variations in hormonal metabolism, diet, or environmental factors.

CLINICAL FEATURES

Fibroids are benign tumours of the muscular layer of the uterus also known as leiomyomas or myometrium (as it is commonly called) of the uterus. The whole appearance is of a firm. Whorled tumour located adjacent to and bulging into the endometrial cavity (sub mucous fibroid), centrally within the myometrium (intramural fibroid), at the outer border of the myometrium (subserosal fibroid) or attached to the uterus by a narrow pedicle containing blood vessels (pedunculated fibroid). Fibroids can arise separately from the uterus, especially in the broad ligament, presumably from embryonal remnants. The typical whorled appearance may be altered following degeneration, three forms of which are recognized: Red, Hyaline, and Cystic. Red degenerates following acute disruption of the

blood supply to the fibroid during active growth. This may present with sudden onset of pain and tenderness localized to an area of the uterus. The pain only lasts a few days. Hyaline degeneration occurs when the fibroid more gradually outgrows its blood supply leaving cystic spaces at the center, termed cystic degeneration. As the final stage in the natural history, calcification of a fibroid may be detected, incidentally in a post-menopausal woman. [1]

PATHOGENESIS

It is not clear whether diet habits, such as consuming red meat, ham, green vegetables, or fiber, could influence the growth of myomas. It is also difficult to analyze the specific effects of physical exercise on the development of uterine myomas, as only a few observational studies have addressed this aspect so far.

EXPOSURE AND DIAGNOSIS

To determine whether a woman has fibroids depends on the sensitivity and specificity of the methods used to detect the fibroids. Incidence of fibroids is even more difficult to estimate than prevalence since most available sources of reported cases are health facility based, which lacks new data especially from the out patients visits where women are usually not screened for fibroids at the time of the visitation. Some of the methods used to diagnose fibroids accurately include the following; Ultrasound, Pathological studies of hysterectomy specimen performed for women of all indications not only those found with fibroids and diagnosis from women undergoing laparoscopic sterilization. Magnetic Resonance (MR) Imaging, Computed Tomography (CT) scans and other imaging modalities also may be employed to confirm a fibroid

Estimating the overall prevalence of fibroids in the population is difficult, since estimates will vary depending on the population examined and the methods used to detect and diagnose fibroid prevalence in asymptomatic women. A total of 20 to 25% of reproductive age women

have clinically symptomatic fibroids [4]. The true population with fibroids is probably underestimated because of the unknown distribution of subclinical tumours.

RISK FACTORS INFLUENCING THE DEVELOPMENT OF FIBROIDS

Many risk factors suggested by epidemiologic studies have linked uterine leiomyomas to the effects of estrogens and progesterone levels and their metabolism; other mechanisms may be involved in fibroids pathogenesis. It is also interesting that myomas and keloids, both more common in black women, have similar gene characteristics. Furthermore, it is well known that family history could represent a strong predisposing factor; the first-degree relatives of affected women have a 2.5 times increased risk of developing fibroids

THERAPY

There are few studies of alternative treatments for fibroids. However, one very small study compared fibroid growth in women treated with Chinese Medicine, body therapy and guided imagery with women treated with non-steroidal anti-inflammatory medications (NSAIDs), progestins, or oral contraceptive pills. After 6 months, ultrasounds showed that fibroids stopped growing or shrank in 59% of the women treated with the combination of alternative medicines, but in only 8% of the other women. Another study reported treatment of 110 women with fibroids smaller than 10 cm. (4.5 inches) with the Chinese herbal medicine Kuei-chih-fu-ling-wan. Fifteen of the 110 (14%) women requested and had a hysterectomy during the study. However, fibroids went away in 19% of the other women, got smaller in 43%, did not change in 34% and grew in 4%. Heavy bleeding improved in 95% and severe cramping improved in 94%. The Chinese Medicine doctor with whom I work tells me that he has success with small fibroids (less than 2 inches), but not with fibroids larger than that.

It is very important to restore a woman’s hormonal balance in order to reduce the symptoms and further growth of fibroids. This approach must be combined with appropriate changes in diet and lifestyle to be able to get its full benefits. It is highly advisable that a woman who has fibroid to refrain from including foods that are rich in saturated fats alcohol and sugar in her everyday meals. Eating these types of foods has the tendency to overwork the liver and hinders the effective breaking down of hormones. Following a healing diet that the primary objective is to lessen the intake of estrogen heavy foods is very important

Study Methodology: The study adopted cross sectional design with quantitative and qualitative methods of data collection, the study population included women who had been diagnosed or confirmed to be having fibroids and had attended alternative medical care for them within Kisumu municipality. The sample size was calculated to be 347 women, it was determined using the formulae presented below

$n = z^2 pq/d^2$ a model that had been used by Fishers. The structured questionnaire was administered at all the registered Nutritional Supplement health facilities and Herbal “clinics” on designated health days for health talks organized by the facilities. All cases from the nutritional supplement health facilities and herbal “clinics” were interviewed, in total 350 women were interviewed. The community health workers helped in mobilizing the women. Close-ended structured and open ended semi-structured questionnaire was administered. The results were coded and entered into a window created in SPSS version 18. The data are presented using frequency tables and charts. Chi square tests were used to assess association between variables with odds ratio and p values being reported.

Findings: A p-value <0.05 was considered statistically significant result. 35.4% of women used unprocessed indigenous herbs, 33.1% used supplements, and 25.7% used locally

processed indigenous herbs. Of the 350 women, 9.4% had fibroids completely removed from their bodies. Trends in proportion of those whose fibroids were completely cleared increased gradually with increasing age of women. Those who used food supplements had significantly higher fibroid clearance rates compared to those who used other herbal alternatives (p<0.0001). The main reasons the women gave for using community based nutritional and herbal supplement alternatives for fibroid management were lack of hope in conventional medicine and fear of complications due to surgery.

While only a small proportion 9.4% of women had their fibroids completely cleared while using the alternative ways, usage of nutritional supplements and locally processed indigenous herbs offers a ray of hope for women who have lost hope in conventional medicine for the treatment of uterine fibroids and those who fear complications due to surgeries. Fear of surgery and its complications was the main important reason that made women turn to alternative ways of managing fibroids using the available options of nutritional and herbal supplements at community level. The indigenous herbs that were popular with the women have not been given particular attention, research has not been done on the locally unprocessed indigenous herbs; neither systematic reviews nor clinically tested trials have been done on the available nutritional and herbal supplements being used by women in the study area.

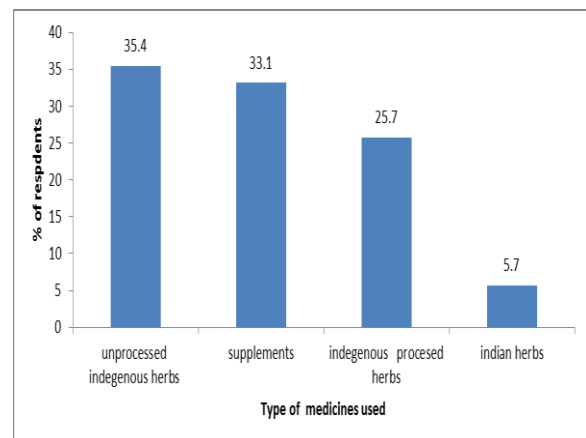
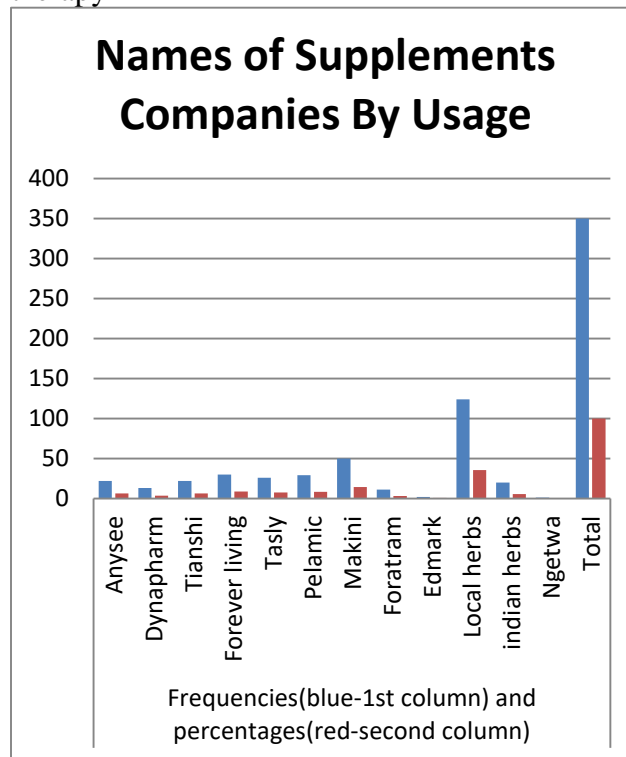


Figure 1.1 above shows the summary of names of supplements used in the alternative management of fibroids and the proportion of the respondents interviewed.

The results indicate that the indigenous unprocessed herbs had the highest percentage of consumption as compared to the rest of the supplements. This was followed by indigenous processed herbs from Makini herbal supplements.

Figure 1.2 below gives the Summary of names of supplements' companies using alternative management of fibroids as a treatment therapy



Discussion on Controversies:

Clinical science does not support the idea that one can take a supplement to reduce the size of a fibroid, it also claims that studies have not proven that any supplement will shrink fibroid growth, some supplements may help resolve cramping and pain one experiences during their periods that may be related to a fibroid and that is just about it all (Livestrong Foundation, 2013). Clinical science claims that some of these

treatments may require further scientific testing to determine their true health benefits; however vitamins and natural supplements do not replace conventional prescription drugs. Lycopene is not approved by the FDA to manage fibroids or treat any other medical condition.

Despite these controversies, the use of nutritional and herbal supplements has increased dramatically over the past 30 years and is still increasing globally as confirmed by previous findings. In Germany, for instance, not less than three quarters of the general population used at least one complementary therapy. In the United States, the equivalent figures had increased from 33% in 1990 to 42%. It is becoming more main stream as improvements in analysis and quality control along with advances in clinical research show the value of herbal medicine in the treatment and prevention of disease.

Conclusion: The alternative methods of fibroid management options at community level were indigenous unprocessed herbs, they were the ones mostly used by women in Kisumu municipality. Comparing all the alternative ways that women were using, indigenous unprocessed herbs was the highest at 35.4%, nutritional supplements usage was at 33.1% while processed indigenous herbs usage was at 25.7%.

REFERENCES

[1] Alexopolulos E.D, Fay T.N, Simons C.D (1999). A Review of 2581 Outpatients Diagnostic Hysteroscopys' in the management of abdominal uterine bleeding published by Merchant My Account Publishers, Pittsburgh, Britain

[2] Amanda Leto (Aug 05, 2010). Fibroids Miracle, the only clinically proven 3 step holistic system for eliminating uterine fibroids naturally, published by Gail Atkinson, SAN Diego, California, USA

- [3] Amanda Leto (Aug 05, 2010). Uterine Fibroids 14-Day Meal Plan & Recipes, Real estate Religion Reports Research publishers, SAN Diego, California, USA
- [4] Baird Day D, Dunson DB, Hill MC, Cousins D and Schectman JM (2003). High Cumulative incidence of uterine leiomyoma in black and white Women: Ultrasound evidence. *American Journal of Obstetrics and Gynecology*.188:100. Elsevier B.V. Publication, Oxford
- [5] Chevallier, Andrew, (1996). *The Encyclopedia of Medicinal Plants*, Dorling Kindersley Limited American ed. Publisher: DK ADULT, USA
- [6] Chiaffarino F, Faerstein E, Szklo M, Rosenshein N (1999). Use of oral contraceptives and uterine fibroids: Results from A case-control study. *British Journal of Obstetrics and Gynaecology*.106:857. Blackwell Publishing, U.S.A.
- [7] Cotran R.S, Kumar V, and Robbins S.L (1994) *Robbins Pathologic Basis of Disease*, Fifth Edition, W.B. Saunders Company
- [8] Daniel E, F (1992). *Primary Diagnosis and Treatment: A manual for clinical and health staff in Development countries*, Macmillan International
- [9] Evans P, Brunsell S (2007). Uterine fibroid tumors: Diagnosis and treatment. *American Family Physician* 75 10:U.S.A
- [10] Faerstein E, Szklo M., Rosenshein, N., (2001). Risk factors for uterine leiomyoma: A practice-based case control study. I African-American heritage, reproductive history, body size, and smoking; *American Journal of Epidemiology*; 153:1
- [11] Gaeddert, Andrew, (1994) *Chinese Herbs in the Western Clinic*, Get Well Foundation
- [12] Goodman M, Wilkens L, Kolonel LN (1997) Association of soy and fiber consumption with the risk of endometrial cancer. *Am Journal of Epidemiology*; 146(4):292-306.
- [13] Hacker N, Moore J (1986) *Benign disease of the uterus*, *Essentials of Obstetrics and Gynecology*, 1st ed. Philadelphia: Saunders, 272-276.
- [14] Hay, Louise, (1984) *You Can Heal Your Life*. Hay House Inc. Hay House Publishing
- [15] Holmes M (2010). *Weight Loss, Phytotherapy like our Herbal Equilibrium*, D&C, hysteroscopy, restore hormonal balance nutritional guidelines, *Women's Health NP* Philadelphia, PA: Harcourt Publishers Ltd;
- [16] Jesse Hanley, John Lee, (2003). "What Your Doctor May Not Tell You about Premenopause" with indol 3 Published by Hay House,
- [17] Lee T K, Lee DK, Kim DI, Lee YC, Chang YC, Kim CH (2004). "Differential inhibition of *Scutellaria barbata* D. Don (Lamiaceae) on HCG-promoted proliferation of cultured uterine leiomyomal and myometrial smooth muscle cells " *Journal of Immunopharmacol Immunotoxicol* 26(3):329-42. Keats Publishing Inc., USA.
- [18] Lee J. *What Your Doctor May Not Tell You about Menopause*. New York: Warner books, 1996.
- [19] Mehl-Madrone L (2002). Complementary medicine treatment of uterine fibroids, *Alternative, The Health-Medical journal* 8; 2:34-6, 38-40, 42, 44-6 Tucson, AZ 85715
- [20] Mehl-Madrone L (2002). "Complementary medicine treatment of uterine fibroids: a pilot study. " *Alternative, the Health Medical Journal* 8(2):34-6, 38-40, 42, 44-6. Tucson AZ 85715
- [21] *Monitoring and Evaluation Report – Kisumu District Strategy Plan 2004/2005*
- [22] Netter F.H (1993) *Atlas of Human Anatomy*, Sixth Edition CIBA-GEIGY Corporation Northrup C (2008). *Women's Bodies, Women's Wisdom, and The Wisdom of Menopause*, Publisher: Hay House, Inc.

[23] Richardson, Jack N.D., (1995). The Little Herb Encyclopedia (Third Edition), Woodland Health Books, Massachusetts, (WHO)

[24] Rein M, Barbieri RL, Friedman AJ. (1995) Progesterone: a critical role in the pathogenesis of uterine myomas. Publisher American Journal, Obstet Gynecology; 172(1):14-18.

[25] Rockville (April 29, 2009.)Management of uterine fibroids: An update of the evidence. Publisher, Agency for Healthcare Research and Quality, London, UK: BMJ

[26] Skilling J (2008). Fibroids: The Complete Guide to Taking Charge of Your Physical, Emotional, and Sexual Well-Being, Publication of the De Nobili Research Library ; 34 ISBN 3-900271-40-2 EUR 68,00 England

[27] Stewart EA. (April, 2009). Epidemiology, clinical manifestations, diagnosis, and natural history of uterine leiomyomas Publisher, Institute of Psychiatry, King's College London, UK, SE5 8AF

[28] Stewart E, A. (April, 2009) Pathogenesis of uterine leiomyomas Publisher, Institute of Psychiatry, King's College London, UK, SE5 8AF
Warshowsky A, Oumano E (2009).Healing Fibroids: A Doctor's Guide to a Natural Cure, Publisher: Fireside Books, Pocket. ISBN 9780743418256

[29] Zhang Y, Peng W, Clarke J, Liu Z. (2010) "Acupuncture for uterine fibroids" Cochrane Database Systematic Review 20 ;(1):CD007221.

[30] Zhang D, (2010). "Green tea extract inhibits proliferation of uterine leiomyoma cells in vitro and in nude mice." American Journal Obstet Gynecology 12