Full Length Research Paper

Attitude of medical practitioners to herbal remedy for HIV infection in Nigeria

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It was estimated by World Health Organisation that about 80% of Africans used herbal remedies for illness and HIV infection has no cure led many HIV patients to source for alternative or complementary therapy. A structured questionnaire was administered to 528 medical practitioners in Nigeria health institutions that attended national conferences on HIV/AIDS 2008 to 2009 to assess their attitudes to the use of herbal remedy by HIV patients. 108 medical doctors, 304 nurses, 92 medical laboratory staff and 24 other hospital staff were the respondents. 276 of the respondents were aware that their HIV patients were taking herbal remedies while 65% wanted government to modify the role of herbs in treatment of HIV infection and public awareness could play a major role (67%) in improving their attitude. This study concluded that many HIV patients take herbal remedy although denied when asked by medical practitioners and their role in HIV infection treatment has to be defined.

Keywords: Medical practitioners, herbal remedy, infection and Nigeria.

INTRODUCTION

As abundant and natural the herbal remedies are, their safety had been a major concern to orthodox medical practitioners. Herbal remedies are herbs, herbal materials, herbal preparations and finished herbal products, that contain as active ingredients parts of plants, or plant materials, or combinations thereof used to treat a multitude of ailments throughout the world (WHO, 2002). It was estimated that about 80% of Africans used herbal remedies (WHO, 2002). The nature and severity of the illness prompted many to seek for options outside orthodox medicines especially when they are available in abundance.

Since the discovery of acquired immunodeficiency syndrome (AIDS) linked with HIV as the causative agent in early 1980s, Nigeria was not excluded from the scourge of this dreadful infection (Barre-Sinoussi et al.,

1983 and Abalaka 2004). Nigeria is the second country in the world with largest population of people infected with HIV infection (UNAIDS, 2010). The use of herbal remedies for terminal illness is very common and the fact that HIV infection had no cure prompted many to seek for traditional medicines and spiritual solutions. Thus Nigerians living with HIV infection since 1987 when the first case was reported in the country resulted to supernatural solutions (Abalaka, 2004). Despite the widely availability of non-expensive Highly Active Antiretroviral therapy (HAART), many HIV patients in Nigeria are desperately looking for quicker solution to the existing problems of long duration therapy by patronising herbal Campaigns media by houses discouragement by medical practitioners had not stopped the herbal therapists from flourishing in HIV infection treatment business.

The effectiveness of herbal remedies in HIV infection is not doubtful. However, many HIV patients taking herbal remedies denied when asked by medical practitioners

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(Dwyer et al 1995). The negative drug interaction between herbal remedy and HAART had been a major concern. St John's wort, herbal derived vitamins and garlic have been documented to negatively interact with anti- HIV drugs in some patients (Dhalla et al 2006; Nyika 2007). It was documented that herbal remedies decreased drug resistance associated with orthodox anti-HIV drugs. Coumarins in combination therapy with Nevirapine (a component of HAART) decreased resistance due to HIV mutation (Dharmatne et al 2002 and Yu et al 2003)

There are many herbal remedies that have been found to inhibit one or more steps in HIV replication (De Clereg, 2000; Kong et al 2003). Alkaloids derivatives herbal remedies (e.g. Ancistrocladus korupensis) from tropical liana plant inhibit reverse transcriptase and HIV induced cell fusion (Matthee et al,1999). Pentosan poly-sulphate, a carbohydrate derivate inhibits HIV tat regulatory protein (p14) that strongly activates transcription of proviral DNA (Watson et al., 1999). A coumarin herbal remedy in form of canolides from tropical forest tree (Calophyllum lanigerum) was rated as non-nucleoside reverse transcriptase inhibitor in potency (Dhamaratne et al., 2002). Despite the fact that sero-deconversion is very rare with HAART, some herbal remedies (e.g. Chinese medicines) have been documented in turning HIV infected patients to sero-negativity (Lu, 1997).

There are many herbal remedies that are effective against HIV infection in Nigeria (Elujoba, 2005). Many of these documented herbal remedies act on the opportunistic infections caused by micro-organisms (Abere and Agoreyo, 2006; Elujoba, 2005). Baissea axillaries Hua, a popular herbal remedy in Nigeria used to treat many diseases was also effective in bacterial caused opportunistic infections in HIV patients (Abere and Agoreyo, 2006). However, neem leaves that are widely distributed in Nigeria increased the CD4 count and general well-being significantly in HIV patients (Mbah et al., 2007).

METHODS

Descriptive cross-sectional study using self-administered questionnaire was given to 900 participants at the national conferences in Abuja and Ilorin organised by non-governmental organisations for HIV/AIDS manager and Islamic medical association of Nigeria in March and August respectively 2009.

RESULTS

Table 1 shows the respondents' professional background and their awareness of HIV patients taking herbal remedies. Most (57.6%) of the medical practitioners that responded are nurses followed by doctors with 20.5%.

Many respondents were aware that their HIV patients are taking herbal remedies (52.3%). 244 (46.2%) respondents estimated that less than 30% of HIV patients are taking herbal remedy and many of their patients (59.8%) denied when asked. Many respondents agree that the HIV patients did not show any positive or negative change with herbal remedy (62.1% and 55.5%) respectively.

Most of the medical practitioners' respondents were of opinion that culture and belief and level of western education (84.8% and 64.4%) respectively greatly influenced the HIV patient's option for herbal remedy. Likewise, seventy-two per cent of the respondents considered herbal remedy ineffective in HIV infection treatment. Thus majority of the medical practitioners (64.4%) advocated for modification of the role of herbal remedy in HIV infection. Public awareness is the preferred option (66.7%) to influence the HIV patients' attitude to herbal remedy.

DISCUSSION

From this study, it was evident that nurses are the majority of medical practitioners in the hospital. Although medical doctors played major role in HIV diagnosis and management but their ratio is about 1/3rd of the nurses and one quarter of other staff members. The almost equal percentage of medical laboratory staff with medical doctor is not surprising because of the role of laboratory in HIV management. This study shows that 52.3% of medical practitioners were aware that HIV patients were taking herbal remedies. However, about 60% of patients denied use of herbal remedies for HIV infection when asked. This is in support of the earlier study that about 70% of HIV patients denied use of herbal remedies when asked by medical practitioners (Dwyer et al 1995).

More than 60% of medical practitioner respondents were of the opinion that herbal remedy did not bring any positive change to the life of their HIV patients. Thus many of the respondents (84.8%) estimated that less than 50% of HIV patients were taking herbal remedy. Therefore herbal remedy was considered herbal remedy in-effective in HIV infection by 72% of the medical practitioner respondents. This is in contrary to World Health Organisation estimation that about 80% of Africans used herbal remedy for illnesses (WHO 2002).

The safety of herbal remedy had been major concern. There were many documented disastrous effects of some herbal remedies (Cos et al 2008). However, more than half of the respondents attributed herbal remedy with few negative effects observed with the therapy. This was in contrary to the earlier studies that herbal remedies could cause negative effects especially when used with orthodox therapy (Dhalla et al 2006 and Nyika 2007).

The use of herbal remedy by HIV patients were attributed to many factors. Many of the respondents

Table 1. Attitude of respondents to herbal remedy

Profession	Number	Percentage (%)
Medical doctors	108	20.5
Nurses	304	57.6
Medical laboratory	92	17.4
Other staff	24	4.5
Aware of patient taking herb		
Yes	276	52.3
No	252	47.7
Estimated % of patient taking herb		
≤30	244	46.2
30-50	204	38.6
50-70	64	12.1
≥70	16	3
Patient confirmed taking herbs when interrogated		
Yes	212	40.2
No	316	59.8
Positive change	010	33.0
Yes	200	37.9
No	328	62.1
Negative change		
Yes	240	45.5
No	288	55.5
Effective in HIV infection		
Yes	148	28
No	380	72
Culture and belief		
Yes	448	84.8
No	80	15.2
Western education		
Yes	340	64.4
No	188	35.6
Action		
Ban	36	6.8
Modified	340	64.4
Discouraged	76	14.4
Encouraged	76	14.4
Method of action		
Legislation	128	24.2
Awareness/publicity	352	66.7
Others	48	9.1

attributed the level of western education, culture and belief as the major factors influencing HIV patients to take herbal remedy. Many medical practitioners were of the opinion that illiteracy contributed to the use of the herbal remedy. The more patient knows the potential harmful effects of herbal remedy, the lesser their interest in such therapy. The culture and belief of HIV patients were based on their knowledge. The more patients know about less potential harmful drugs (orthodox), the more

influences their culture and belief change (Onifade et al 2011).

There have been conflicting role of herbal remedy in HIV infection (Cos et al 2008). From this study, many of the respondent medical practitioners were of opinion that the role of herbal remedy in HIV infection has to be defined. Dharmatne et al 2002 and Yu et al 2003 in their studies concluded that some herbal remedies were effective in complementary therapy like coumarins

inhibiting resistance to nevirapine, thus modification of herbal remedy in HIV infection was canvassed by many (64.4%) medical practitioners. Herbal remedies like canolides and Chinese herbs were documented to act as alternative and curative therapy respectively in HIV infection (Dhamaratne et al., 2002 and Lu 1997). The defined role of herbal remedy could be formed by legislation although public awareness programme is the most favoured by 67% of medical practitioner respondents in this study.

CONCLUSION

This study concluded that many medical practitioners dominated by nurses were aware that herbal remedy is in-effective in HIV infection and many patients denied when asked but modification of its role needed to be modified through public awareness because illiteracy, culture and belief influenced their attitude.

REFERENCES

- Abalaka JOA (2004). Attempts to cure and prevent HIV/AIDS in central Nigeria between 1997 and 2002: opening a way to a vaccine-based solution to the problem? Vaccine: **22**(29-30):3819–3828.
- Abere TA, Agoreyo FO (2006). Antimicrobial and toxicological evaluation of the leaves of Baissea axillaries Hua used in the management of HIV/AIDS. BMC Complement Alter Med. 21; 6:22
- Adefemi OA, Elujoba AA, Odesanmi WO (1988). Evaluation of the toxicity potential of Cassia podocarpa with reference to official Senna, West Afr. J. Pharmacol. and Drug Res. 8(1):41-48
- Barre-Sinoussi F, Chermann JC, Rey F, Nugeyre M T, Chamaret S, Gruest C, Danguest C, Axler-blin C, Vezinet-Brun F, Ronzioux C, Rozenbaum W, Montagnier L (1983). Isolation of a T lymphotropic retrovirus from a patient at risk for acquired immune deficiency syndrome (AIDS) Sci. 220:868-871
- Bringmann G, Wenzel M, Ross Kelly T, Boyd MR, Gulakowski RJ, Kaminsky R (1999). Octadehydromichellamine, a structural analog of the anti-HIV michellamines without centrochirality, Tetrahedron; **55**: 1731–1740
- Cos P, Maes L, Vlietinck A, Luc Pieters L (2008). Plant-Derived Leading Compounds for Chemotherapy of Human Immunodefiency Virus (HIV) Infection –An Update (1998 –2007). Planta Med. **74**: 1323–1337

- De Clereq (2003). Current lead natural products for the chemotherapy of human immunodeficiency virus infection, Med. Res. Rev: **20**: 323-349
- Dhalla S, Chan KJ, Montaner JS and Hogg RS (2006). Complementary and alternative medicine use in British Columbia a survey of HIV positive people on antiretroviral therapy. Complement Ther Clin. Pract. 12(4):242-248
- Dharmaratne HRW, Tan GT, Marasinghe GPK, Pezzuto JM (2002). Inhibition of HIV-1 reverse transcriptase and HIV-1 replication by Calophyllum coumarins and xanthones, Planta Med. **68**: 86–7
- Dwyer JT, Salvato-Schille AM, Coulston A, Casey VA, Cooper WC, Selles WD (1995). The use of unconventional remedies among HIV positive men living in California. J. Assoc. Nurses AIDS Care, **6**:17-28
- Elujoba AA (2005). Medicinal plants and herbal medicines in the management of opportunistic infections in people living with HIV/AIDS, Our experience so far. Being a Guest lecture presented at the National Scientific Conference organized by the Nigerian Society of Pharmacognosy (NSP) at Zaria, Niger. Pp.11-12.
- Kong JM, Goh NK, Chia LS, Chia TF (2003). Recent advances in traditional plant drugs and orchids, Acta Pharmacol. Sin **24**: 7-21
- Lu WB (1997). A report on 8 seronegative converted HIV/AIDS patients with traditional Chinese medicine, Zhongguo Zhong Xi Yi Jie He Za Zhi Zhongguo Zhongxiyi Jiehe Zazhi; 17 (5):271–273. Matthee G, Wright AD, König G (1999). HIV reverse transcriptase inhibitors of natural origin. Planta Med. 65: 493–506
- Mbah AU, Udeinya IJ, Shu EN, Chijioke CP, Nubila T, Udeinya F, Muobuike A, Mmuobieri A, Obioma MS (2007). Fractionated *neem* leaf extracts is safe and increases CD4+ cell levels in HIV/AIDS patients, Am. J. Ther. **14** (**4**):369-374
- Nyika A (2007). Ethical and regulatory issues surrounding African traditional medicine in the context of HIV/AIDS, Dev. World Bioeth. 7 (1):25-34
- Onifade AA, Jewell AP, Okesina AB (2011). Are herbal remedies effective in HIV infection? Lambert Academy Publishers (LAP), Germany pp. **91-160** ISBN 978-3-8443-2594-2
- UNAIDS/WHO (2010). "UN Millenium Goals report 2010" (Nigeria Country report to United Nations General Assembly session) pp. 2-14
- Watson K, Gooderham NJ, Davies DS, Edwards RJ (1999). Interaction of the transactivating protein HIV-1 tat with sulphated polysaccharides, Biochem. Pharmacol; **57**: 775–783
- WHO (2002). Traditional Medicine; Growing Needs and Potential, WHO Policy Perspectives on Medicines. *World Health Organization, Geneva* pp 1–6.