

Short communication

Attitude of HIV patients to herbal remedy for HIV infection in Nigeria



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Summary: World Health Organisation estimated that about 80% of Africans use herbal remedies for illness. Human immunodeficiency virus (HIV) infection which was believed to have no cure led many HIV patients to source for alternative or complementary therapy. A structured questionnaire was administered to 640 HIV patients in selected Nigerian HIV/AIDS clinics from 2009 to 2011 to assess their attitudes to the use of herbal remedy. Six hundred and ten (610) of the respondents were diagnosed by medical doctor and 6.3% (40) had lived with HIV for 4 years and above. Twenty (20) respondents had sought for medical therapy after diagnosis, 310 applied herbal remedy and 180 of the respondents opted for spiritual solutions. Although, majority (73.4%) would deny the use of herbal remedy when asked by a medical practitioner, 100 respondents combines herbal remedy with HAART and 67.2% of the entire respondents are of the opinion that herbal therapy is effective in HIV infection management. 64.1% of the respondents wanted herbal remedy as complementary therapy and 54.7% concluded that non availability of herbs could stop them from using herbal remedy. This study concluded that the use of herbal remedy for HIV infection is high despite advice by medical doctors thus there is a need for caution when prescribing orthodox medicines that could interfere with hepatic metabolism

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INTRODUCTION

Herbal remedies contain active ingredients of plants, plant materials, or combinations thereof to treat a multitude of ailments. It had been estimated that about 80% of Africans use herbal remedies (WHO, 2002). The nature and severity of various illnesses prompted many to seek for alternative medicines due to their abundance and affordability. About 2/3rd of the HIV infected people in the world live in sub-Saharan Africa with Nigeria being ranked as the second country in the world (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 (Abalaka, 2004). Furthermore, the long duration required for the use of Highly Active Antiretroviral therapy (HAART) forced many HIV patients in Nigeria to look for alternative therapy with short duration of use (Abalaka, 2004).

Earlier reports have shown that some herbal remedies inhibit one or more steps of HIV replication (De Clereq, 2000; Kong et al 2003). Alkaloids derivatives herbal remedies of *Ancistrocladus*

korupensis Tropical Liana plant was also reported to inhibit reverse transcriptase and HIV induced cell fusion (Mathee et al., 1999). Pentosan poly-sulphate, a carbohydrate derivative was shown to inhibit HIV tat regulatory protein (p14) that 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 a non-nucleoside reverse transcriptase inhibitor in HIV (Dhamaratne et al., 2002). Onifade et al. (2012) also reported complete sero-conversion in an HIV patient after herbal therapy.

Furthermore, many herbal remedies have been reported to be active against opportunistic infections in HIV patients (Elujoba, 2005; Abere and Agoreyo, 2006). *Baissea axillaries* Hua, a popular herbal remedy in Nigeria had bactericidal effect against bacterial opportunistic infections in HIV patients (Abere and Agoreyo, 2006). Also, *neem* leaf that is widely used in Nigeria as antimalarial was shown to increase CD4 count and general well-being of HIV patients (Mbah et al., 2007).

However, many HIV patients do not declare to their Physicians that they take herbal remedies

(Dwyer et al., 1995). This exposes the patients to possible negative drug interaction between orthodox medicine and herbal preparations. St John's wort, herb-derived vitamins and garlic was documented to cause negative drug interaction with orthodox HIV drugs in some HIV patients (Dhalla et al., 2006; Nyika, 2007). It is therefore, necessary to find out the proportion of Nigerian HIV patients who use herbal remedies and evaluate their attitude towards herbal use.

MATERIALS AND METHODS

Sixty hundred and forty (640) HIV patients attending clinic at Central Hospital, Benin City Edo State and LAUTECH Teaching Hospital Osogbo, Osun State, Nigeria were recruited into this study between 2009 and 2011. An interviewer-administered questionnaire was used for this cross sectional study. The questionnaire was divided into 2 sections; HIV infection diagnosis with initial treatment and subsequent attitude to herbal remedies.

RESULTS

As shown in Table 1, more than half (57.8%) of the respondents were diagnosed of HIV infection within

Table 1. Diagnosis of HIV infection and initial therapy

	Number	%
Years of HIV diagnosis		
< 2	370	57.8
2 - 4	230	35.9
> 4	40	6.3
Professional who diagnosed HIV in the patient		
Medical doctor in tertiary hospital	140	21.9
Medical doctor in state/general hospital	120	18.8
Medical doctor in private hospital	350	54.7
Laboratory staff	10	1.6
Nurse	20	3.1
1 st treatment		
Spiritual	180	28.1
Herbal therapy	310	48.4
Medical therapy	20	3.1
No treatment	130	20.3
Duration of combined therapy (herbal & medical)		
< 2 years	440	68.8
2-4 years	100	15.6
>4 years	10	1.6
None	90	14.1
Negative change with orthodox therapy		
Yes	60	9.4
No	580	90.6
Positive change with medical therapy		
Yes	640	100

Table 2. Attitude of HIV patients to use of herbal remedy

Question	N	%
Denied when asked by medical practitioners		
Yes	470	73.4
No	170	23.6
Reasons for denial		
Fear	110	23.4
Shy	140	29.7
Unsure of response of medical practitioner	220	46.6
Aware of side-effects of herbal therapy		
Yes	180	28.1
No	460	71.9
Is herbal therapy effective?		
Yes	430	67.2
No	210	32.8
More expensive		
Orthodox therapy	490	76.6
Herbal therapy	150	23.4
% of income spent on herbal therapy		
<20%	433	92.2
20-40%	37	7.8
Culture influences you taking herbal therapy?		
Yes	183	39
No	279	59.4
Not sure	8	1.6
Role of herbal therapy		
Alternative	50	7.8
Complementary	410	64.1
None	180	28.1
Modify herbal therapy for HIV infection		
Yes	220	34.4
No	420	65.6
Method to modify herbal therapy for HIV infection		
Legislation	20	3.1
Publicity/awareness	190	29.7
Other methods	60	9.4
Status quo	370	57.8
Reason you will stop using herbal therapy		
Cost	88	18.8
Availability	257	54.7
Ban	22	4.7
Side-effects	66	14.1
Conviction	30	6.3
Unsure	7	1.6

2 years by qualified medical doctors in private clinic/hospital. Forty eight per cent of the respondents opted for herbal remedy immediately after the diagnosis. About 68.8% combined herbal therapy with orthodox medicines. Very few (9.4 %) complained of side-effects of medical therapy but all the respondents agreed that medical therapy made significant positive change to their health.

Table 2 shows attitude of HIV patients to the use of herbal remedy. Many respondents (73.4%) declared that they deny the use of herbal remedy when asked by their Physicians while 71.9% were not aware of the side effects of herbal remedies.

Four hundred and thirty (430) respondents were of the opinion that herbal remedy is effective. About 77% considered orthodox therapy more expensive when compared to herbal remedies. Three hundred and fifty (350) respondents agreed that they will continue to use herbal therapy unless it is not available.

DISCUSSION

The use of herbal remedy by patients for HIV infection has been a major concern. There are many negative drug interactions between orthodox and herbal remedies especially when the constituents of the latter are not known. From this study, many of the respondents (73.4%) have denied the use of herbal therapy when asked by medical practitioners. They claimed they were unsure of their Physician's reaction. This observation supports earlier study that 81.1% of HIV patients denied the use of herbal remedy when asked by medical practitioners (Molto et al., 2012)

Almost half of the respondents (48%) resulted to herbal therapy immediately they were diagnosed with HIV infection while very few (3.1%) of the subjects sought for medical therapy. This observation confirms earlier report by World Health Organisation (WHO) that almost 80% of the population use herbal remedies for illnesses (WHO 2002). It also confirms the reports of Dwyer et al., 1995 and Molto et al., 2012.

All the subjects that used orthodox drug confirmed its effectiveness with about 9.4% of them reporting negative changes. It was evident from this study that many of the people living with HIV infection were diagnosed recently while about 6.3 % of the respondents reported that they had experienced symptoms of HIV infection for about 4 years or more before they were actually diagnosed. This confirmed earlier report of delayed HIV infection diagnosis and treatment in Africa (UNAIDS 2010).

Many of the respondents (460) reported no side effects with herbal therapy and about 67.2% agreed that herbal therapy is effective in HIV management. This observation suggests that urgent attention is required in sensitising HIV infected patients against combined therapy especially, as the use of herbal therapy had been associated with many side-effects because of unknown chemical constituents (Cos et al., 2008). Furthermore, there is urgent need to determine the toxicity of these herbal preparations.

Most HIV patients wanted herbal remedy as complementary therapy with HAART. They attributed their action to cultural belief, availability and affordability. In fact, 54.7% of those who take herbal remedy reported that they will only discontinue the use of the therapy when unavailable. This indicates that herbal business will continue to flourish despite campaign by media and other organisations as earlier reported by Onifade et al., 2010.

The general assumption that herbal therapy is more expensive than free antiretroviral therapy was refuted by the HIV patients as 76.6% of the respondents considered orthodox therapy very expensive. About 92.2% of the respondents declared that they spent less than 20% of their income on herbal therapy. Thus, the major method of discouraging the use of herbal remedy is by making orthodox medicine available to HIV patients at little or no cost.

This study concluded that majority of HIV patients use herbal therapy. However, their attitude of not informing their Physicians poses great danger as their Physician will not be able to counsel them appropriately against the use of the herbal preparations as well as their possible interaction with orthodox medicine which could result in toxicity.

REFERENCES

- Abalaka JOA (2004) Attempt 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 and Agoreyo FO (2006) Antimicrobial and toxicological evaluation of the leaves of *Baissea axillaries* Hua used in the management of HIV/AIDS, *Biomedical Central Complement Alter Med.* **21**; 6: 22
- Cos P, Maes L, Vlietinck A and Pieters L (2008) Plant-derived leading compounds for chemotherapy of human immunodeficiency virus (HIV) infection- an update (1998-2007), *Planta Med* **74**; 1323- 1337
- De Clereq (2000), Current lead natural products for the chemotherapy of human immunodeficiency virus infection, *Med. Res. Rev* **20**, 323-349.
- Dhalla S, Chan KJ, Montaner JS, 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 xanthenes, *Planta Med*; **68**: 86–87.

- Dwyer JT, Salvato-Schille AM, Coulston A, Casey VA, Cooper WC and 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, Nigeria: 11-12.
- Kong J M, Goh N K, Chia L S and Chia T F (2003). Recent advances in traditional plant drugs and orchids, *Acta Pharmacol. Sin* **24**, 7-21
- Liu (2007). The use of herbal medicines in early drug development for the treatment of HIV infections and AIDS, *Expert Opin Investig Drugs*; **16** (9):1355-1364.
- Matthee G, Wright AD, König G (1999) HIV reverse transcriptase inhibitors of natural origin. *Planta Med*; **65**: 493–506
- Mbah A U, Udeinya IJ, Shu EN, Chijioke CP, Nubila T, Udeinya F, Muobuiké A, Mmuobieri A and Obioma MS(2007) Fractionated *neem* leaf extracts is safe and increases CD4+ cell levels in HIV/AIDS patients, *America Journal Ther* **14** (4):369-74
- Moltó, José; Miranda, Cristina; Malo, Sara; Valle, Marta; Andreu, Angels; Bonafont, Xavier; Clotet, Bonaventura (2012) Use of herbal remedies among HIV-infected patients: Patterns and correlates, *Med Clin (Barc)***138**:93-98
- Onifade AA, Jewell AP and Okesina AB (2010) Virologic and immunologic outcome of treatment to HIV infection with herbal concoction, A-Zam, among clients seeking herbal remedy in Nigeria, *Afr J Tradit Complement Altern Med.* **8** (1):37-44
- Onifade AA, Jewell AP, Okesina AB, Ajadi TA, Rahamon SK and Muhibi MO (2012) 5-Month Herbal Therapy and Complete Sero-Reversion with Recovery in an Adult HIV/AIDS Patient scientific reports.124, <http://dx.doi.org/10.4172>
- UNAIDS/WHO (2010) "UN Millenium Goals report 2010" http://www.un.org/millenniumgoals/pdf/mdg_report_2010_en_r15 –low res 20100615-.pdf
- Watson K, Gooderham N J, Davies D S and Edwards R J (1999) Interaction of the transactivating protein HIV-1 tat with sulphated polysaccharides, *Biochem Pharmacol*; **57**: 775–783