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Louis NELSON

Diabetes Treatment

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http://www.ngrguardiannews.com/editorial_opinion/article02/indexn2_html?pdate=150209&ptitle=Two%20Nigerian%20Heroes

Two Nigerian Heroes

by Reuben Abati

Louis Obyo Obyo Nelson and Sanya Ojikutu: these are two Nigerians who in the midst of spreading despair and a culture of failure and inefficiency have brought Nigeria cause for cheer. Their stories which made the news pages in the last week have done much more that is positive for Nigeria's image than all the resources that have been spent on the laundering of Nigeria's image since Emeka Chikelu initiated "the Heart of Africa Project" and which may still be spent by Dora Akunyili as she seeks to re-brand Nigeria afresh by throwing money at the subject (N3. 4trn?). Louis Nelson and Sanya Ojikutu belong to the group of Nigerians whose remarkable achievements ought to recommend them as sure candidates for the National Honours List ahead of the traditional rulers, failed civil servants, politicians and contractors, and the committee of girlfriends and sweethearts who tend to stand a better chance under Nigeria's peculiar way of honouring its own.

Louis Nelson has been credited with finding the cure for Diabetes, considered the sixth largest killer disease in Nigeria and a medical condition that reportedly afflicts about 123 million people worldwide. Diabetes, simply the failure of the pancreas to break down sugar, resulting in all forms of complications, is treated with the external injection of insulin and diet management, Nelson's original contribution is a herb-based drug that can be administered orally as capsule, tablet or syrup. Clinical trials have shown that the drug indeed cures diabetes. This must be a great relief to all persons living with diabetes who go through a rigorous health management routine. Nelson obtained a patent for his discovery from the United States Patent Office in 2003, and on February 3, 2009, he signed an agreement with GDPAU, a New Jersey-based pharmaceutical company for the commercialization of the drug known as Antidiabetic Phaytopharmaceutical. In its February 4 report, the ThisDay newspaper gushed: "History, As Nigerian Finds Cure for Diabetes". We are told: "The drug which was said to have been administered on many diabetic victims (sic), has been found to be very safe and highly effective. It was also said to have corrected erective (sic) dysfunctions noticed in those victims (sic).

Both the Federal Ministry of Health and the Nigeria Institute for Pharmaceutical Research had tried to share out of Louis Nelson's glory claiming him as a national property. Nelson's achievement is the product of hardwork and dedication. A University of Ibadan doctorate degree holder in Molecular and Computational Chemistry, Nelson, 61, had served as Permanent Secretary in the Ministry of Science and Technology and had also worked with the Raw Materials Research and Development Council. This is more about him and the Nigerian system. If Nelson had not been accepted internationally, he would have been conveniently ignored at home: a country where research and honest work is hardly ever taken seriously...

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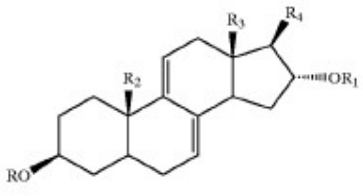
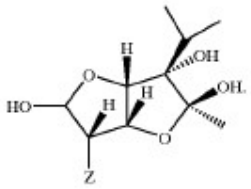
http://v3.espacenet.com/publicationDetails/biblio?

US6531461 // GB2378652
Steroidal Medicament for the Treatment of Diabetes

General Structure 'A'



wherein for example,
R=H, R_1=H, R_2=Me, R_3=Me
and R_4=



2003-02-19
Inventor(s): NELSON LOUIS OBYO OBYO [NG]
Abstract -- Compounds of general structure 'A', and metal salts thereof, are useful in the treatment of diabetes mellitus and associated conditions when administered in an effective non-toxic dose in the form of a pharmaceutically acceptable composition resulting in cell regeneration. <PC>wherein R = H or 3-o-beta-D-Glucopyranoside; R1 = H or 1-4C alkyl or -OCOCH3; R2, R3 = H or 1-4C alkyl; and R4 = e.g.

References Cited [Referenced By]
U.S. Patent Documents
4387101 June 1983 Kawamatsu et al.
Foreign Patent Documents
9507694 Mar., 1995 WO
WO 98/57636 Dec., 1998 WO
Other References
Schmittamann et al. (DN 121:153368, HCAPLUS, abstract of J. Prakt. Chem./Chem.-Ztg. (1994), 336,(3), 225-32).* .
Ohigashi, Masanori et al. (DN 121:270, abstract of J. Chem. Ecol. (1994), 20(3), 541-53)..

PRIOR ART

Diabetes is a potentially life threatening condition in mammals brought about by an inability of the mammals to produce insulin. Insulin, a polypeptide hormone produced in the pancreas of the mammal, controls the amounts of glucose present in the blood by stimulating the uptake of glucose by the muscle and adipose tissue.

The production of insulin is ultimately controlled by the brain. Biosynthesised insulin has been the drug of choice for the treatment of diabetes mellitus or hyperglycemia (the term imparted to an excess of glucose in the blood), for many years. Biosynthesised insulin is manufactured by recombinant DNA technology at a high cost.

The administration of biosynthesised insulin to the patient occurs via injection directly into the muscle, since it is partially digested if administered orally. This administration method further elevates costs due to the requirement for needles and furthermore, increases the likelihood of infection and/or contamination.

More recently thiazolidine derivatives, as described in U.S. Pat. No. 4,387,101, have been introduced for the treatment of hyperglycemia. However, there are some concerns relating to the toxicity of these

derivatives.

WO9857636 teaches of an oral antidiabetic agent, rosiglitazone maleate which when administrated in conjunction with insulin acts primarily by increasing insulin sensitivity.

None of the aforementioned methods of treatment offer any remission for diabetes. The present invention has been made from a consideration of this problem.

According to the present invention there is provided a compound for use as a medicament, having general structure `A`, and metal salts thereof; ##STR3##

wherein R, R.sub.1, R.sub.2, R.sub.3 and R.sub.4 are any of the following combinations.

TABLE 1 N.B Z denotes the point at which substituent R.sub.4 couples to general structure `A`. R R.sub.1 R.sub.2 R.sub.3 R.sub.4 H or 3-o-.beta.- H or alkyl H or alkyl H or alkyl Substituent I, D-Gluco- (C.sub.1 --C.sub.4) or (C.sub.1 --C.sub.4) (C.sub.1 --C.sub.4) Substituent II, pyranoside --OCOCH.sub.3 Substituent III, Substituent IV or Substituent V.

and wherein substituents I, II, III, IV and V and are as shown below: ##STR4## ##STR5## ##STR6##

DISCLOSURE OF INVENTION

It has been found that the compounds of the present invention, as isolated from the leaf of the common **Vernonia amygdalina** plant and having the general structure `A`, as identified in G. Igile et al., **J. Nat. Prod., 1995, 58, 1438**, R. Sanogo et al., **Phytochemistry, 1998, 47, 73**, M. Jisalca et al., **Phytochemistry, 1993, 34, 409** and D. Ponglux et al., **Chem. Pharm. Bull., 1992, 40, 553** are particularly useful for the treatment of hyperglycemia...

Furthermore, the compounds of the present invention may bring about cell regeneration as trials involving hyperglycemic mammals have resulted in the restoration of complete insulin activity within six months.

It is thought that these compounds enhance insulin sensitisation and may even replace insulin whist initiating beta cell regeneration.

Advantageously, the compounds of the present invention exhibit no known toxicity when administered to either hyperglycemic or non-hyperglycemic mammals.

The compounds of the present invention may be used in the management of type I and type II diabetes mellitus.

The compounds of the present invention may be in the form of one or more cationic salts, for example sodium, potassium, lithium. The compounds may also be in the form of a hydrate or solvate.

The compounds of the present invention may be conveniently isolated and purified using conventional separation--purification, such as solvent extraction, phasic transfer or redistribution, concentration, concentration under reduced pressure, crystallisation, chromatography and recrystallisation.

Furthermore, since the compounds of the present invention are derived from the common **Vernonia amygdalina** plant, they are easily and cost effectively obtained, particularly when compared with the compounds of the prior art.

The compounds of the present invention may be administered by any convenient parenteral route.

Preferably, the compounds of the present invention will be administered orally. The dose may be varied depending upon the patient, but will generally be 100 mg, three times daily.

According to a second aspect of the present invention there is provided a pharmaceutical composition which may find utility in the treatment of hyperglycemia in mammals comprising a therapeutic amount of any of the compounds of the present invention and a pharmaceutically acceptable carrier excipient or diluent for example a sodium salt, glucose syrup, sugar solution, alcohol solution, CMC or starch.

According to a third aspect of the present invention there is provided a method for the treatment of

hyperglycemia in mammals which utilises any of the compounds of the present invention.

Extraction Procedure

The leaves of the plant Vernonia amygdalina were dried and ground to fine particles. The particles (100 g) were soaked in water; ethanol (1l, 1:1 v/v) for 1 hour, after which time the mixture was transferred to a Soxhlet extractor. The resulting mixture was filtered through a Whatman No 1 filter paper and concentrated in vacuo to provide the crude extract (2.3 g). The crude extract (2.3 g) was then purified and fractionated by chromatography furnishing the aforementioned compounds. The compounds were identified by their molecular weight and melting point.

Determination of Biological Effects

The initial extract was orally administered to 26 patients all of whom had been previously diagnosed as suffering from hyperglycemia. A group of 5 control subjects were used who maintained diet discipline throughout the trial. The initial extract was dosed to the patient 3 times daily in 100 mg aliquots for 6 months.

The blood glucose levels of all 31 subjects were closely monitored.

The 26 patients receiving the initial extract no longer required to maintain diet discipline after the first month and examination showed remission of the disease after 3 months.

15 patients continued to receive medication for the remaining 3 months of the trial.

All volunteers now appear to have recovered from the disease and have returned to their normal life prior to the diagnosis of the disease.

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http://en.wikipedia.org/wiki/Vernonia

Vernonia

Vernonia is a genus of about 1000 species of forbs and shrubs in the family Asteraceae. Some species are known as Ironweed. Some species are edible and of economic value. They are known for having intense purple flowers. The genus is named for English botanist William Vernon. There are numerous distinct subgenera and subsections in this genus. This has led some botanists to divide this large genus into smaller groups which separate the species into distinct genera. For instance, the Flora of North America only recognizes about 20 species, 17 of which are in North America or n. Mexico, with the other two or three being found in South America.[1]

Uses

Several species of Vernonia, including V. calvoana, V. amygdalina, and V. colorata, are eaten as leaf vegetables. Common names for these species include bitterleaf, ewuro, ndole and onugbu. They are common in most West African and Central African countries. They are one of the most widely consumed leaf vegetables of Cameroon, where they are a key ingredient of ndole stew. The leaves have a sweet and bitter taste. They are sold fresh or dried, and are a typical ingredient in egusi soup.

V. amygdalina is well known as a medicinal plant with several uses attributed to it, including for diabetes, fever reduction, and recently a non-pharmaceutical solution to persistent fever, headache, and joint pain associated with AIDS (an infusion of the plant is taken as needed).[2][3] These leaves are exported from several African countries and can be purchased inexpensively in grocery stores aiming to serve African clients for about $1.50/225gm pkg. frozen. The roots of V. amygdalina have been used for gingivitis and toothache due to its proven antimicrobial activity.[4]

In North America, of the 17 species of Vernonia (eg., V. altissima, V. fasciculata, V. flaccidifolia) all have the same effective properties as a blood purifier and uterus toner[5], containing sesquiterpene lactone, which helps also to prevent atherosclerosis.

V. galamensis is used as an oilseed in East Africa.

Vernonia species are used as food plants by the larvae of some Lepidoptera species including Coleophora vernoniaeella (which feeds exclusively on the genus) and Schinia regia (which feeds exclusively on V. texana).

Links

* "Vernonia Information System". Arid Land Agricultural Research Center. http://199.133.210.23/ICISWeb/VernSearch.asp. Retrieved on 2006-09-10.

* "Crop fact sheet for V. galamensis". Purdue University Center for New Crops and Plant Products. http://www.hort.purdue.edu/newcrop/cropfactsheets/vernonia.html. Retrieved on 2006-09-10.

* Multilingual taxonomic information from the University of Melbourne

* "Effect of Processing and Preservation Methods on Vitamin C and Total Carotenoid Levels of some Vernonia (Bitter Leaf) Species". http://www.bioline.org.br/request?nd05028. Retrieved on 2006-09-10.

References

1. ^ Flora of North America: Vernonia

2. ^ Herbal medicine--its use in treating some symptoms of AIDS; 9th International AIDS Conference

3. ^ Report:INDIGENOUS APPROACHES TO THE HIV/AIDS SCOURGE IN UGANDA, Chap. 5

4. ^ TRADITIONAL MEDICINE DEVELOPMENT FOR MEDICAL AND DENTAL PRIMARY HEALTH CARE DELIVERY SYSTEM IN AFRICA. African Journal of Traditional, Complementary and Alternative Medicines. Vol. 2, Num. 1, 2005, pp. 46-61

5. ^ J. K. Crellin, Jane Philpott, A. L. Tommie Bass, 1989, A Reference Guide to Medicinal Plants: Herbal Medicine Past and Present, Duke University Press, p.265

6. ^ Flora of North America: Vernonia gigantea

7. ^ Tella, A. (1976). Analgesic and antimicrobial properties of Vernonia amygdalina. Brit. J. Clin. Pharmacol. 7: 295-297.

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http://www.hort.purdue.edu/newcrop/afcm/vernonia.html

Alternative Field Crops Manual
University of Wisconsin

Vernonia

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2 Department of Agronomy and Plant Genetics, Minnesota Extension Service, University of Minnesota, St. Paul, MN 55108.

3 Departments of Agronomy and Soil Science, College of Agricultural and Life Sciences and Cooperative Extension Service, University of Wisconsin-Madison, WI 53706. Feb. 1992.

I. History:

Vernonia (Vernonia galamensis L.) or ironweed, is one of 6,500 wild plant species screened by the USDA for production of desirable seed oils. This potential oilseed crop is native to eastern Africa. There are over 1,000 species in the genus ranging from tropical herbaceous species to North American shrubs. Another vernonia species, V. anthelmintica Willd., was evaluated earlier during the 1950s for its vernolic (epoxy)

acid content. Consistent problems with seed shattering, disease, and low yield of vernolic acid resulted in an end to further agronomic and breeding studies on this species. Developmental research on use of the oil and vernolic acid from Vernonia species has been conducted since the 1960s.

II. Uses:

Vernonia seed contains about 40 to 42% oil of which 73 to 80% is vernolic acid. This is about 30% more vernolic acid than the best varieties of V. anthelmintica. Products that can be made from vernonia include epoxies for manufacturing adhesives, varnishes and paints, and industrial coatings. The low viscosity of vernonia oil would allow it to be used as a nonvolatile solvent in oil-based paints since it will become incorporated in the dry paint rather than evaporating into the air. Consequently, it is possible that emissions associated with photochemical pollution can be reduced by up to 160 million pounds per year if this crop is fully exploited.

Vernonia could also serve as a natural source of plasticizers and stabilizers (binders) for producing polyvinyl chloride (PVC plastic), which currently is manufactured from petroleum. The potential use of vernonia as a petroleum substitute is important since the demand for petroleum each year in the USA is approximately 8,500 pounds per person, of which about 500 pounds per person is needed for production of plastics and industrial petrochemicals. Some vernonia species have been reported to have medicinal properties.

III. Growth Habits:

Vernonia is an annual, herbaceous plant in the Compositae (Daisy) family. This plant will not flower until the daylengths are shorter, which is typical of most tropical plants. Plants are thornless and vary in height and number of flowers. Plant habits vary from those that are 8 in. tall with a single flower head, to those with vigorous, shrubby plants with multiple stems and flower heads that may reach 9 ft in height. The stems do not branch until after the terminal flower head is formed. The lavender terminal flowers, and lateral flowers that develop in the uppermost leaf axils, have a thistle-like appearance. If sufficient moisture is present for continued growth, the lateral branches with secondary flower heads will grow above the first-formed flower head. Brown seeds develop in seed heads that are 1 in. in diameter. Leaves are alternate and sessile, and have toothed margins with taper-pointed tips and wedge-shaped bases. Leaves are 1/4 to 2 in. wide and up to 10 in. in length. In Zimbabwe (southern Africa) the crop requires five to seven months from planting seed to harvest. However, in Zambia (central Africa) the seed was mature four months after planting. Plants observed by Gilbert (1986) in eastern Africa were shorter (8 in.) and apparently matured much earlier than four months after germination.

IV. Environment Requirements:

A. Climate:

Vernonia is a crop adaptable to the latitudes within 20 degrees north or south of the equator since this comprises its natural distribution. It has also been grown successfully in Pakistan, which indicates a broader adaptation. Hawaii, Puerto Rico, and the semiarid areas of the subtropics and tropics, such as in Africa, Central and South America, Australia, and India, would be suitable growing regions. This crop is adaptable to areas with as little as 20 in. of annual rainfall. Sufficient moisture must be present to establish good stands and permit the first flower heads on each stem to mature. But rainfall levels that allow secondary flower heads to develop will result in poor uniformity of seed maturation and seed shattering during subsequent rainfall or harvesting.

The effort to develop this species as a new crop must concentrate on production areas where a short rainy season occurs during a period of four, or at most five months, to promote good growth and flowering. The subsequent period for seed development and maturation should have one or two months when there is very little or no precipitation. Dry conditions promote seed retention. It seems that natural selection has favored a plant type in vernonia that does not disperse seed at maturity, but rather will retain it until rainfall is adequate for germination and growth of the seedlings. Rainfall pattern is evidently more important than total amount for maximum productivity of vernonia.

B. Soil:

Porous, well-drained soils are required to grow this crop successfully. Field trials in Zimbabwe on well-

drained soil found that plants grow erect with a single stem until the first flower head appears, after which lateral branches develop. However, on poorly-drained soils the terminal growth stops before flowering and the upper portion of the plant dies. Branches will subsequently grow from the base of the plant, but also wither and die without flowering. Soil with intermediate drainage will produce plants that develop a few flower heads, but with very low seed yields.

C. Seed Preparation and Germination:

Seeds germinate quickly, but seedling vigor is poor. A western African variety from northern Ghana has vigorous seedlings and could be used in developing varieties with better seedling vigor.

V. Cultural Practices:

Considerable agronomic research was conducted on V. anthelmintica in the 1960s and 1970s. Research on this species was stopped when yields continued to be low due primarily to poor seed retention. Agronomic studies on V. galamensis began in Zimbabwe during 1983, which are currently unpublished. These studies used the unimproved, yet very uniform germplasm from Ethiopia. Additional vernonia germplasm is being collected in Zimbabwe for future evaluations.

A. Seedbed Preparation:

Since seed of vernonia is relatively small, a firm, level seedbed with few weeds should help promote the rapid establishment of a good stand as with most crops.

B. Seeding Date:

A seeding-date trial to determine the best planting time was conducted in Zimbabwe during 1985-1986. Seed was sown at mid-month from December to April, which is comparable to June through October in the northern hemisphere. All plants flowered and produced mature seed. The plot seeded in December flowered when plants were almost 9 ft tall, while the last plot seeded in April had flowering plants that were only 3 ft tall. This study indicated that later planting dates are preferred, if the number of frost-free days in the growing season will permit it.

C. Method and Rate of Seeding:

Preliminary results of unpublished research on the effect of plant spacing conducted in Zimbabwe during 1985 and 1986, and continued in 1987 were inconclusive. More information was deemed necessary before reliable conclusions could be drawn.

D. Fertility Requirements:

Studies on the response to fertilizer were also performed in Zimbabwe, but will not be reported until further research is conducted in this area.

E. Variety Selection:

Varietal development for vernonia is still in the early stages. Wild types of vernonia are still being collected to obtain sufficient genetic resources to develop more productive varieties. No released varieties of V. galamensis have been reported.

F. Weed Control:

Weed control after germination is a problem due to the poor seedling vigor. Recommendations for weed control by cultural or chemical methods are not currently available. No herbicides are currently cleared for use in vernonia.

G. Diseases and Control:

No serious disease problems as yet have been reported for vernonia.

H. Insects and Other Predators:

Insect damage has not been reported in research trials.

I. Harvesting:

A standard harvesting method has not been reported. Perdue et al. (1986) mentioned that seeds will stay on plants for 30 or more days after ripening. Growers can therefore wait until most of the seeds are ripe before harvest, which is especially important when seed ripens unevenly among plants. More uniform ripening of the seeds was discovered to occur when plants were "topped" earlier in the growing season, that is, pruned back to a height of 6 in. above the ground. This practice promotes production of many lateral branches that tend to flower and develop seed at the same time, which results in more uniform ripening of seeds and a shorter time from planting to maturity.

J. Drying and Storage:

Specific procedures for the drying and storage of vernonia have not been determined.

VI. Yield Potential and Performance Results:

Vernonia has limited possibilities as an oilseed crop for the northern continental United States. This crop flowers and sets seed too late in the growing season because shorter days are required for flower initiation and development. Frosts follow flowering too quickly to allow complete seed development and maturation. Trial plantings conducted at Experiment, Georgia in the 1960s produced few flowers and no seed. Trials planted in greenhouses in Glenn Dale, Maryland flowered in November and seed matured in December, which is much too late for a field crop in that area. Failure of vernonia to produce a mature crop in preliminary field trials was due most likely to unsuitable environments with excessive moisture, poorly drained soil and/or insufficient length of growing season.

However, a variety was found in Nigeria during the 1980s, at about 11 degrees north and south of the equator, which flowers about six weeks earlier than any plants found previously. If a variety can be found that flowers early enough in the United States to allow for maturation of the seed, does not shatter readily, and is resistant to disease and insect problems, then this oilseed crop may be suitable for the Southwest when planted in late summer or early fall. Areas that do not have a well-defined, severe dry season and soils without good drainage should be avoided. On the other hand, Perdue (personal communication, 1991) did not feel there was good potential for growing vernonia in the southwestern USA due to low and variable yields. This crop is clearly not adapted or recommended for the Upper Midwest. Tropical and subtropical areas would be climates in which this potential oilseed crop could be grown.

Seed yields improved from 1,627 to over 2,200 lb/acre in Zimbabwe during 1986 to 1987. The yield of vernolic oil in the Zimbabwe trials (1987) was 891 lb/acre, which would mean that about 365,000 acres of vernonia would need to be planted to supply the solvent needs for the production of alkyd-resin paint in the United States. This production figure does not include the needs for paint production in other countries and the possible demands from other uses of vernonia oil. Researchers have indicated that seed yields can be doubled or tripled with better cultural practices and by breeding for improved varieties after more wild germplasm is collected and made available to plant breeders. Additional agronomic and utilization research on V. galamensis needs to continue before it can be established as a new crop.

VII. Economics of Production and Markets:

The current market for vernonia is small. Utilization research for vernonia has shown there are at least three areas with strong potential markets: (1) as a plasticizer and stabilizer for polyvinyl chloride - a current market, (2) a component in protective coatings, and (3) use in interpenetrating polymer networks with polystyrene to make unique plastics. The best potential market for this crop in the near future is in development of epoxy coatings. By bringing the oil or seed to the international market, even if in small quantities, the agricultural sector would prove it can provide a reliable supply of seed. It has also been suggested that the oil should be extracted from the seed and refined in the producing countries before export, in order to realize a higher price for the product, and reduce shipping costs. Vernonia will not be considered seriously as a new industrial crop until a vernonia product is in commerce and agriculture has shown it can produce a reliable supply at a reasonable cost.

VIII. Information Sources:

* Vernonia. 1986. Growing Industrial Materials Fact Sheet, USDA, Office of Critical Materials, Washington, D.C.

* Vernonia galamensis, Potential New Crop Source of Epoxy Acid. 1986. R.E. Perdue, Jr., K.D. Carlson, and M.G. Gilbert. Economic Botany 40(1):54-68.

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http://www.ossrea.net/ssrr/no30/ssrr30-04.htm

INDIGENOUS APPROACHES TO THE HIV/AIDS SCOURGE IN UGANDA

Sarah Nalugwa

Persistent fever with severe pain in the joints: Herbal extracts from **Vernonia amygdalina** (Mululuza) and Erythrina abyssinica (Kigajji) are used to treat the fever. Both of these plant extracts are mixed in water for drinking. In addition, persistent headaches are also a common problem among AIDS patients. The headache usually occurs in the forehead and is related to accumulation of heat and pressure in the brain. In such cases, herbs are used to prepare a steam bath for the patient.

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http://www.aegis.org/conferences/iac/1993/WSB326.html
9th Int Conf AIDS 1993 Jun 6-11; 9:75 (abstract no. WS-B32-6)

Herbal medicine--its use in treating some symptoms of AIDS.

Ssenyonga M, Brehony E; CONCERN, Masaka, Uganda.

Most Villagers in Kirumba Sub-county, Rakai District have not got access to western medicine due to cost and availability. CONCERN has trained over 140 village women in the use of local herbs to alleviate some symptoms of AIDS. The trained women are all members of informal groups of caring women called Munno mukabi found in Rakai District. They regularly visit the sick in their homes and offer whatever practical assistance they can. They offer some simple herbal remedies for major symptoms of AIDS -- they act as traditional healers. Each woman keeps a simple First Aid Box with some of the following herbs: roots and leaves of **Veronia amygdalina** for fever: Ocimum suave for loss of appetite; Psorospernum febrifugum for skin rash; Commelina benghalensis for mouth thrush; Punica granatum for diarrhoea and vomiting; Oxygonum Sinuatum for boils, etc. The trained women are encouraged to plant the recommended herbs to ensure a readily available supply. Response to date from villagers is positive. Of 261 households being visited 166 are helped with herbs. Most popular herbs are: Psorospernum febrifugum, Albizia zygia and **Vernonia amygdalina**.

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http://www.sciencedaily.com/releases/2009/05/090505132224.htm

African Tea Offers Promising Treatment For Type-2 Diabetes

Could a special African tea be used to treat type-2 diabetes?

ScienceDaily (May 11, 2009) — Researchers are attempting, with the help of a special African tea, to develop a new treatment for type-2 diabetics. The tea is used as a treatment in traditional Nigerian medicine and is produced from the extract of Rauvolfia Vomitoria leaves and the fruit of Citrus aurantium. The scientists have recently tested the tea on patients with type-2 diabetes and the results are promising.

The researchers have harvested the ingredients for the tea in Africa, totalling approximately fifty kilos of leaves and three hundred kilos of fruit from the wild nature of Nigeria. Afterwards the tea has been produced exactly as local healers would do so. The recipe is quite simple: boil the leaves, young stalks and

fruit and filter the liquid.

First mice, then humans

Associate professor Per Mølgaard and postdoc Joan Campbell-Tofte from the Department of Medicinal Chemistry have previously tested the tea on genetically diabetic mice. The results of the tests showed that after six weeks of daily treatment with the African tea, combined with a low-fat diet, resulted in changes in the combination and amount of fat in the animals' eyes and protection of the fragile pancreas of the mice.

The researchers have recently completed a four month long clinical test on 23 patients with type-2 diabetes and are more than satisfied with the result.

"The research subjects drank 750ml of tea each day. The [tea] appears to differentiate itself from other current type-2 diabetes treatments because the tea does not initially affect the sugar content of the blood. But after four months of treatment with tea we can, however, see a significant increase in glucose tolerance," said postdoc Joan Campbell-Tofte from the University of Copenhagen.

Changes in fatty acid composition

The clinical tests show another pattern in the changes in fatty acid composition with the patients treated in comparison with the placebo group.

"In the patient group who drank the tea, the number of polyunsaturated fatty acids increased. That is good for the body's cells because the polyunsaturated fat causes the cell membranes to be more permeable, which results in the cells absorbing glucose better from the blood," said Joan Campbell-Tofte.

The researchers hope that new clinical tests and scientific experiments in the future will result in a new treatment for type-2 diabetics.
