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Phytochemical screening of ten Nigerian medicinal plants.

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Abstract
The purpose of the present study is to show the quantity and quality of ten Nigerian medicinal plant used in Nigeria and African for both tradition Alternative medicine and also, serves as an encouragement for the production of new antibiotics locally and the importance of natural endowed gift of nature. The ten medicinal plant are Pseudocedrela kotschyi, Anogeissus leiocarpus, Terminalia glaucescens, Garcina kola, Zanthoxylun Lessmamul, Sarcorcephalus latiolia, Olax subcorpidica, Alchornea laxiflora, Spondia mombin and Morinda Lucida. It was observed that all ten plant contains the important phytochemical like Alkaloids, Phenols, Flavonoids, Saponins, Essential oil and Tannins at appreciable quantity and quality. The use of medicinal plant should be encouraged.

Keywords: Phytochemicals, Quantitative and Qualitative Method of Analysis, Minerals present, Antinutrient, Nutrient Composition, Proximate composition

1. Introduction

Phytochemicals are chemical compounds formed during the plants normal metabolic processes. These chemicals are often referred to as "secondary metabolities" of which there are several classes including alkaloids, flavonoids, coumarins, glycosides, gums, polysaccharides, phenols, tannins, terpenes and terpenoids (Harborne, 1973; Okwu, 2004). In addition to these substances, plants contain other chemical compounds. These can act as agents to prevent undesirable side effects of the main active substances or to assist in the assimilation of the main substances (Anon, 2007). Opium juice, for example from *Papaver somniferum*, con-tain other chemical compounds in addition to morphine and reports show that it gives fewer side effects than morphine administered on its own (Anon, 2007). In contrast to synthetic pharmaceuticals based upon single chemicals, many medicinal and aromatic plants exert their beneficial effects through the additive or synergistic action of several chemical compounds acting at single or multiple target sites associated with a physiological process. As pointed out by Tyler (1999), these synergistic pharmacological effects can be beneficial by eliminating the problematic side effects associated with the predominance of a single xenobiotic compound in the body. Kaufman *et al.* (1999) extensively documented how synergistic interactions underlie the effectiveness of a number of Phytomedicines. (Osuntokun 2015).

Most of these phytochemical constituents are potent bioactive compounds found in medicinal plant parts which are precursors for the synthesis of useful drugs (Sofowora, 1993).

Phenols are a member of a group of aromatic chemical compounds with weakly acidic properties and are characterized by a hydroxyl (OH) group attached directly to an aromatic ring. The simplest of phenols derived from benzene is also know as phenol and has the chemical formula C_6H_5OH. The presence of phenols is considered to be potentially toxic to the growth and development of pathogens (Okwu and Okwu, 2004). The structural classes of phenolic compounds include the polyphenolic (hydrolysable and condensed tannins) and monomers such as ferulic and catechol (Okwu, 2005)Polyphenols might interfere in several of the steps that lead to the development of malignant tumours, may play a role in inactivating carcinogens and inhibiting the expression of mutagens (Urquiaga and Leighton, 2000; Okwu, 2004).(Osuntokun *et al*,.(2014).

Flavonoids are 15-carbon compounds generally distributed throughout the plant kingdom. They are known to be synthesized by plants in response to microbial infection and have been

found *in vitro* to be effective against a wide array of microorganisms (Harborne, 1973). Flavone with the molecular formula, $C_{15}H_{10}O_2$, is a commonly found plant flavonoid (Martindale, 1996). Flavonoids are potent water-soluble super antioxidants and free radical scavengers which prevent oxidative cell damage, have strong anti-cancer activity and protects against all stage of carcinogens. Flavonoids in the body are known to reduce the risk of heart diseases (Urquiaga and Leighton, 2000). In terms of anti-cancer activity, they inhibit the initiation, promotion and progression of tumors (Urquiaga and Leighton, 2000; Okwu, 2004).

In recent times, plant flavonoids have attracted attention as potentially important dietary cancer chemo-protective agents (Hertog *et al.* 1993; Elangevan *et al.* 1994). Some isoflavones act as allele chemicals widely used in insecticides (Kandaswami *et al.* 1994).

Saponins are glycosides of both triterpenes and steroids that are characterized by their bitter or astringent taste, foaming property, haemolytic effect on red blood cells and cholesterol binding properties (Okwu, 2005). Saponins have been shown to possess both beneficial (lowering cholesterol) and deleterious (cytotoxic and permeabilization of intestinal epithelium) properties and to exhibit structure dependent biological activity. In medicine, it is used to some extent as an expectorant and an emulsifying agent (Harborne, 1973).

Quinones are aromatic rings with two or more ketone substitutions. The natural quinone pigments range in colour from pale yellow to almost black and there are over 450 known structures (Harborne, 1973). These compounds are responsible for the browning reaction in cut or damaged fruits and vegetable and are an intermediate in the melanin synthesis pathway in human skin. Hypercin is an anthroquinone which is an example of quinine obtained from St. John's wort (*Hypericum perforatum*) has received much attention as an antidepressant, antiviral and also have several antimicrobial properties (Aarts, 1998).

Tannin is a general descriptive name for a group of polymeric/phenolic substances capable of tanning leather or precipitating gelatin from a solution, a property known as astringency (Harborne, 1973). They are divided into two groups, namely hydrolyzed and condensed tannins. Hydrolysable tannins are based on gallic acid, usually as multiple esters with D-glucose, while the numerous condensed tannins (often proanthocyanides are derived from flavonoid monomers (Harborne, 1973; Okwu, 2005). Many physiological activities such as stimulation of phagocytic cells, host mediated tumor activity and wide range of anti-infective action have been assigned to tannins (Okwu and Okwu, 2004).

Tannins (tannic acid) are a mixture of esters of gallic acid with glucose whose exact composition varies according to its source. Tannic acid is an astringent that precipitates albumin. Its topical use is now restricted to the treatment of bedsores, minor ulcerations and the likes. Alkaloids are one of a large group of basic nitrogenous organic compounds found in plants, usually having strong physiological or toxic effects on the animal body. They are usually derivatives of Nitrogen ring compounds, presenting colorless crystals that are bitter in taste, soluble in alcohol, and slightly soluble in water, Examples are atropine, caffeine, coniine, morphine, nicotine, quinine, and strychine. Essential (volatile) oils possess characteristic aroma and exert carminative, antiseptic action. The mild bitter taste stimulates the flow of saliva, which is antiseptic. Sulfur compounds present in medicinal plant as shown by their pungent taste and smell have a bactericidal effect.

Table 1. Selected Phytochemical Classes of Medicinal

Class	Characteristic	Use	Action	Reference
Alkaloids	Bitter taste, colourless, Nitrogen containing bases, crystalline or liquid at room temperature	Raw material for the synthesis of useful drugs	Analgesic, antispasmodiac,bactericidal effect	Harborne, 1973; Stray,1998; Okwu and Okwu, 2004
Phenols	Weakly acidic, Hydroxyl group attached directly to an aromatic ring.	Disinfection	Antiseptic, anti-inflammatory, antimicrobial, anti-tumor	Urquiaga and Leighton, 2005.Okwu, 2005
Flavonoids	Water soluble, super antioxidant and free radical scavenger	In prevention of oxidative cell damage, allergies free radicals, microbes.	Antioxidant, ant carcinogens, antimicrobial, antitumor	Kandaswami *et al.* 1994. Manikandan *et al* 2006
Saponins	Bitter taste, foaming property, haemolytic effect on red blood cells.	Emulsifying agent	Expectorant, cough suppressant, hemolytic activity	Sofowora, 1993; Okwu, 2005.
Essential oil	Distinctive scent, aroma and fragrance	In perfumes, flavourings and medicines	Medicating, soothing relief	Sofowora, 1993;
Tannins	Unpleasant taste, tans leather	In the production of leather and ink; in treatingwounds,varicose ulcers, hemorrhoids ,frostbiteand burns	Soothing relief, Regenerates skin, anti-inflammatory, Diuretics	Okwu and Okwu, 2004.

Table 2: Local name, Common Name and Botanical Name of Medicinal Plants under Study.

Local Names	Common Name	Botanical name	Pl plant part used
P Akboko	Akboko	***P Pseudocedrela kotschyi***	ROOT
Ayin	Ayin	***Anogeissus leiocarpus***	ROOT

-	-	***Terminalia glaucescens***	ROOT
Edun	Orogbo	***Garcina kola***	STEM
Ukhiaghele, ughanghan	Ata	***Z Zanthoxylun Lessmamul***	STEM
Gberesi	Egbesi	**Sarcorcephalus latiolia**	BARK
Ifon	Ifon	***Olax subcorpidica***	S STEM
Ewe Iya	Benth	***Alchornea laxiflora***	ROOT
Iyeye	Hog Plum	***Spondia mombin***	STEM
O Oruwo	Brimstone tree	***Morinda Lucida***	BARK

Materials and Methods for Phytochemical Screening Methods.

The extract were analysed for the presence of Alkaloid, Glycosides, Tannins, Saponins, Anthraquinones, Anthocyanosides, Flavonoids, Reducing sugars, Cyanogenic (Edeoga *et al.*2005,Wall *et a*l,.(1952), review and modified by Sofowora (1993).(Osuntokun & Olajubu 2014).

Qualitative Method of Analyses

Plant filtrate were prepared by boiling 20 g of the fresh plant in distilled water. The solution was filtered through a vacuum pump. The filtrate were used for the phytochemical screening for flavonoids, tannins, saponins, alkaloids, reducing sugars, anthraquinones and anthocyanosides.

(i)Test for Alkaloids

About 0.2gram were warmed with 2% of H_2SO_4 for two minutes, it was filtered and few drops of Dragendoff's reagent were added. Orange red precipitate indicate the present of Alkaloids **(Trease and Evans 1989).**

(ii) Test for Tannins

One milliliter of the filtrate was mixed with 2m1 of FeC1,A dark green colour indicated a positive test for the tannins.

(iii) Test for Saponins

One milliliter of the plant filtrate were diluted with 2 ml of distilled water; the mixture were vigorously shaken and left to stand for 10min during which time, the development of foam on the surface of the mixture lasting for more than 10mm, indicates the presence of saponins.

(iv) Test for Anthraquinones

One milliliter of the plant filtrate were shaken with 10ml of benzene; the mixture was filtered and 5 ml of 10 % (v/v) ammonia were added, then shaken and observed. A pinkish solution indicates a positive test

(v)Test for Anthocyanosides

One milliliter of the plant filtrate were mixed with 5 m1 of dilute HCI; a pale pink colour indicates the positive test.

(vi) Test for Flavonoids

One milliliter of plant filtrate were mixed with 2 m1 of 10% lead acetate; a brownish precipitate indicated a positive test for the phenolic flavonoids. While for flavonoids, I m1 of the plant filtrate were mixed with 2m1 of dilute NaOH; a golden yellow colour indicated the presence of flavonoids (Edeoga *et ai.*,2005)

(vii) Test for Reducing Sugars

One milliliter of the plant filtrate was mixed with Fehling A and Fehling B separately; a brown colour with Fehling B and a green colour with Fehling A indicate the presence of reducing sugars.

(viii) Test for Cyanogenic glucosides

This was carried out subjecting 0.5g of the extract 10ml sterile water filtering and adding sodium picrate to the filtrate and heated to boil (Trease and Evans 1989).

(ix) Test for Cardiac glucosides

Legal test and the killer-kiliani was adopted, 0.5g of the extract were added to 2ml of acetic anhydrate plus H_2S0_4 (Trease and Evans 1989)

Quantitative Method of Analyses

(i) Saponins

About 20grams each of dried plant samples were ground and, put into a conical flask after which 100 ml of 20 % aqueous ethanol were added. The mixture were heated using a hot water bath. At about 55^OC, for 4 hour with continuous stirring, after which the mixture were filtered and the residue re-extracted with a further 200 ml of 20% ethanol. The combined extracts were reduced to 40 ml over a water bath at about 90°C. The concentrate was transferred into a 250 ml separatory funnel and 20 rnl of diethyl ether were added and then shaken vigorously. The aqueous layer were recovered while the ether layer was discarded. The purification process was repeated three times. 60 rnl of n-butanol were added. The combined n-butanol extracts were washed twice with 10 m1 of 5% aqueous sodium chloride. The remaining solution were heated in a water bath. After evaporation, the samples were dried in the oven to a constant weight; the saponin content was calculated as percentage of the starting material

(ii) Flavonoids

About 10 g of the plant sample were extracted repeatedly with 100 ml of 80% aqueous methanol, at room temperature. The whole solution were filtered through Whatman filter paper No 42. The filtrate were later transferred into a crucible and evaporated into dryness over a water bath; the dry content were weighed to a constant weight (Edeoga *et al.* 2005).(Osuntokun& Ajayi 2014).

(iii) Cardiac glucosides

Legal test and the killer-kiliani wwas adopted, 0.5g of the extract were added to 2ml of acetic anhydrate plus H_2S0_4 (Trease and Evans 1989)

(iv) Tannins

About 500 mg of the plant sample were weighed into a 50 ml plastic bottle. 50 ml of distilled water was added and shaken for 1 hour on a mechanical shaker. This was filtered into a 50 ml volumetric flask and made up to the marked level. Then, 5 ml of the filtrate was transferred into a test tube and mixed with 2 ml of 0.1 M FeCl in 0.1 M Hcl and 0.008 M potassium ferrocyanide. The absorbance were measured at 120 nm within 10 minutes. The tannins content was calculated using a standard curve of extract

(v) Alkaloids

Five grams of the plant sample were weighed into a 250 ml beaker and 200ml of 10% acetic acid in ethanol was then be added, the reaction mixture were covered and allowed to stand for 4 hour. This were filtered and the extract will be concentrated on a water bath to one-quarter of the original volume. Concentrated ammonium hydroxide was added drop-wise to the extract until the precipitation is complete. The whole solution were allowed to settle and the precipitate was collected, washed with dilute ammonium hydroxide and then filtered; the residue being the alkaloid, which was dried and weighed to a constant mass (Trease and Evans 1989).

(vi) Phlobatannins

About 0.5grams of each plant extracts were dissolved in distilled water and filtered. The filtrate were boiled in 2% HCl, red precipitate show the present of phlobatannins.

(vii)Total Phenol (Spectrophotometric methods):

2g each of the samples were defatted with 1ml of diethyl ether using a soxhlet apparatus for 2 h. The fat free samples were boiled with 50ml of ether for the extraction of the phenolic components for 15 minutes. 5ml of the extracts were pipetted into 5ml flask and then 10ml distilled water was added. 2ml of ammonium hydroxide solution and 5ml of concentrated amyl alcohol were also added. The samples were made up to mark and left to react for 30 min. for colour development. This was measured at 505 nm.(Osuntokun 2015),

Results

Table 3: Qualitative Analysis of the Phytochemical Screening of Medicinal plant

SAMPLE	Alkaloid	Glycoside	Steroid	Anthraquinone	Phenol	Tannins	Saponin	Flavonoids
Pseudocedrela kotschyi	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	ND
Anogeissus leiocarpus	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve
Terminalia glaucescens	+ ve	+ ve	+ ve	ND	+ ve	+ ve	+ ve	+ ve
Garcina kola	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve
Zanthoxylun Lessmamul	+ ve	+ ve	- ve	+ ve	+ ve	+ ve	+ ve	- ve
Sarcorcephalus latiolia	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	- ve
Olax subcorpidica	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	+ ve	- ve
Alchornea laxiflora	+ ve	+ ve	±ve	+ ve	+ ve	+ ve	+ ve	+ ve
Spondia mombin	+ ve	+ ve	±ve	+ ve	+ ve	+ ve	+ ve	+ ve
Morinda Lucida	+ ve	+ ve	- ve	+ ve	+ ve	+ ve	+ ve	+ ve

Table 4: Quantitative Analyses of Minerals Present in Plant Extract (mg/100g) Result

Plant sample used	Na	K	Ca	Mg	Zn	Fe	Pb	Cu	Mn	P
Pseudocedrela kotschyi	24.73	30.11	32.45	26.05	28.04	6.88	ND	0.01	6.39	27.51
Anogeissus leiocarpus	20.56	24,34	20.89	23.10	19.89	5.92	ND	0.04	5.34	26,91
Terminalia glaucescens	14.59	15.20	19.77	20.10	20.59	21.10	1.24	1.20	6.23	18.90
Garcina kola	19.00	24.98	23.12	20.34	16.89	22.12	2.56	2.14	5.72	17.78
Zanthoxylun Lessmamul	20.92	23.12	29.34	24.78	17.34	20.34	2.78	3.00	4.92	274.6
Sarcorcephalus latiolia	20.33	41.21	15.50	25.37	18.75	4.36	ND	ND	15.33	85.43
Olax subcorpidica	20.00	26.14	31.46	22.05	25.03	5.77	ND	0.01	6.20	25.12
Alchornea laxiflora	19.82	24.77	29.49	24.21	36.10	6.53	ND	0.02	5.45	35.78
Spondia mombin	21.37	30.54	23.55	19.67	17.58	10.21	ND	0.03	25.37	97.65
Morinda Lucida	11.68	19.54	12.75	22.64	20.50	7.48	ND	0.01	17.33	103.21

Table 5: Quantitative Analyses of Anti –nutrients Present in Plant Extracts Result in Percentage (%)

Parameters	Plant Extract used									
	Pseudocedrela kotschyi	***Pseudocedrela kotschyi***	***Pseudocedrela kotschyi***	***Pseudocedrela kotschyi***	***Pseudocedrela kotschyi***	***Pseudocedrela kotschyi***	***Pseudocedrela kotschyi***	***Pseudocedrela kotschyi***	***Pseudocedrela kotschyi***	
Tannin	2.20	2.10	2.32	2.37	2.30	2.25	ND	ND	2.10	3.00
Phenol	3.50	3.55	2.50	2.47	3.42	3.47	ND	ND	3.41	2.25
Phylate	17.30	17.27	15.65	15.71	12.36	12.42	1.25	1.30	1.87	3.89
Oxalate	3.69	3.70	6.57	6.55	8.55	8.59	1.50	2.00	2.09	3.90
Saponin	13.89	14.01	9.71	9.75	7.51	7.60	ND	ND	4.0	ND
Flavonoid	8.53	8.55	6.49	6.55	10.32	10.40	ND	ND	3,89	4.0
Alkaloids	1.23	1.25	4.25	4.31	4.36	4.37	ND	ND	3.0	2.90

KEY: ND =Not Detected

Table 6: Quantitative analyses Of Proximate Composition of Plant Extracts

S/N	% Ash	% MC	% CP	% Fat	% Fibre	%CHO
Pseudocedrela kotschyi	12.67	9.38	13.33	6.48	11.45	46.69
Anogeissus leiocarpus	12.69	9.40	12.87	6.44	11.43	47.17
Terminalia glaucescens	9.35	3.78	14.68	7.25	4.37	60.57
Garcina kola	9.37	3.74	14.72	6.82	4.42	60.93
Zanthoxylun Lessmamul	8.72	7.33	16.25	5.37	8.59	53.74
Sarcorcephalus latiolia	8.75	7.35	16.19	5.42	8.55	53.74
Olax subcorpidica	10.56	9.12	14.45	6.59	10.33	42.59
Alchornea laxiflora	10.12	9.00	12.01	6.55	10.12	41.17
Spondia mombin	10.67	8.00	11.93	5.92	9,68	40.56
Morinda Lucida	11,78	9.00	12.67	6.34	12.45	45.92

Keys: MC=Moisture content CP=Crude protein. CHO=Carbohydrate

Discussion and Conclusion

The ten plant under study were Pseudocedrela kotschyi, Anogeissus leiocarpus, Terminalia glaucescens, Garcina kola, Zanthoxylun Lessmamul, Sarcorcephalus latiolia, Olax subcorpidica, Alchornea laxiflora, Spondia mombin and Morinda Lucida. this plant were used as medicinal plant in Nigeria and west Africa for medicinal remedy of various infections and diseases. Katende *et al*. 1998.(Osuntokun&Nmosi 2014).

In table I, shows the importance in the use of medicinal plant and its various constituents that made up the important secondary metabolite in the plant,this important phytochemical are Alkaloids which is used for Analgesic, antispasmodiac,bactericidal effect, wchich server as Raw material for the synthesis of useful drugs. Harborne, 1973; Stray, 1998.

Phenols is another phytochemical that were found in the medicinal plant, they areWeakly acidic, Hydroxyl group attached directly to an aromatic ring,it serves as Antiseptic, anti-inflammatory, antimicrobial, anti-tumor and also a good disinfectant in its activity. Urquiaga and Leighton, 2005.Okwu, 2005. *Flavonoids is Water soluble, super antioxidant and* free radical scavenger.it is used in the In prevention of oxidative cell damage, allergies free radicals, microbesits active as Antioxidant, anticarcinogens, antimicrobial, antitumor. Kandaswami *et al.*1994. Manikandan et al, 2006. Saponins were observe to have Bitter taste, foaming property, haemolytic effect on red blood cells and Emulsifying agent. it were also observed that saponin containing plant are good Expectorant, cough suppressant, hemolytic activity. Sofowora, 1993;Okwu, 2005.Essential oil were observe in plant with active medicinal values. Plant containing essential oil has a distinctive scent, aroma andFragrance, they are used in perfumes, flavourings and medicines Sofowora, 1993. Tannins were observable in medicinal plant, they have Unpleasant taste, tans leather, used in the production of leather and ink; in treating wounds, varicose ulcers, hemorrhoids ,frostbite and burns, and it has a Soothing relief, regenerates skin, anti-inflammatory, Diuretics in its activity Okwu and Okwu,2004.

In table 2, local names, Common Name, Botanical name and plant part used for Medicinal purposes of the ten medicinal plant were recorded. Okwu and Okwu, 2004. (Osuntokun 2014)

In table 3, Qualitative analyses Analysis of the Phytochemical Screening of Medicinal plant were elucidate, this includes Alkaloid, Glycoside, Steroid, Anthraquinone, Phenol, Tannins, Saponin and Flavonoids.*Pseudocedrela kotschyi*, it were observed that Alkaloid, Glycoside, Steroid, Anthraquinone, Phenol, Tannins, Saponin were present ,and Flavonoids were not determine,ie present in no appreciable quantity. *Anogeissus leiocarpus*, all phytochemicals were present, *Terminalia glaucescens*, all phytochemical constituent were present and Anthraquinone were not determined. Garcina *kola* has all phytochemicals, *Zanthoxylun Lessmamul*, all phytochemical were present but steroid and Flavonoids were absent. Sarcorcephalus latiolia and *Olax subcorpidica*, all chemical constituent were present except Flavonoids. *Alchornea laxiflora* and *Spondia mombin*, all constituent were present, except for steroids which is either present nor absent.*and Morinda Lucida, steroid* is absent, but all other phytochemical were present. If we compare the present of this phytochemicals in table 1, Alkaloids, Phenols, Flavonoids, Saponins, Essential oil and Tannins has one activity on the other, this result in the potency of the medicinal plant, in the production of drugs, perfumes, antibacterial cream and etc. Harborne, 1973; Stray, 1998; Okwu and Okwu, 2004, Urquiaga andLeighton, 2005.Okwu, 2005, Kandaswami et al. 1994. Manikandan*et al* 2006, Sofowora, 1993; Okwu, 2005, Sofowora, 1993; and Okwu and Okwu,2004,(Osuntokun 2015).

In table 4, it shows the Quantitative analyses and Minerals present in plant extract (mg/100g) result, it was observed that all plant sample has an appreciable quantity of important trace element, like Na(Sodium), K(Potassium), Ca(calcium), Mg(Magenesium), Zn(Zinc),, Fe(Iron), Pb(Lead), Cu(copper) and, Mn(manganese).(Okoli *et al.* 2002).*Pseudocedrela kotschyi and Anogeissus leiocarpus,* it was observed that lead(Pb) were not present, but all other trace element were present. *Terminalia glaucescens, Garcina kola* and *Zanthoxylun Lessmamul* contain the minerals very large quantity, the deposit of the mineral is very high quantity .In Sarcorcephalus latiolia, lead(Pb) and CUCopper) were not detrmined(ND) i.e they are completely absent. *Olax subcorpidica,Alchornea laxiflora, Spondia mombin and Morinda Lucida,* Pb (lead) is absent . this contribute to the safety of the medicinal plant, Lead(Pb) is injurious to health, ie it should not be consume Saxena et al,.(1994) since of the medicinal plant investigated does not contain Lead, it shows that some medicinal plant can be consume as edible food as vegetable, as soup in our food condiment and they will not serve as edible poison.(Sofowora 1993)

In table 5, it shows the Quantitative analyses of Anti –nutrients present in plant extracts result in percentage (%),*Pseudocedrela* kotschyi, *Anogeissus leiocarpus, Terminalia glaucescens and Garcina kola* contain high percentage of Phytate and Saponin and a percentage of Alkaloids. *Zanthoxylun Lessmamul and* Sarcorcephalus latiolia contain high quantity of *Phytate and Flavonoids. Olax subcorpidica. and Alchornea laxiflora* they, it were observed that, both plant sample did not contain Tannin, Phenol, Saponin, Flavonoid and Alkaloids. *Spondia mombin*,saponin

were found at the a very high percentage and *Morinda Lucida*, *saponin* were not determined ie not found.

In table 6, shows the Quantitative analyses of Proximate Composition of Plant Extracts, it were observed that, all plant contains Ash, Moisture Content, Crude Protein, Fat, Fibre and carbohydrate. *Pseudocedrela kotschyi and Anogeissus leiocarpus* Protein Ash and Carbohydrate at a very high percentage, *Terminalia glaucescens, Garcina kolacontain, Zanthoxylun Lessmamul,* Sarcorcephalus latiolia , *Olax subcorpidica and Alchornea laxiflora* carbohydrate and crude protein at a very high percentage. *Spondia mombin and Morinda Lucida* contain Ash, Crude Protein and carbohydrate at a very high percentage. Cosam 2007.

Conclusion

Medicinal plant are gift from nature, its uses should be encourage, especially in the production of drug, and which is an encouragement to Alternative medicine practice . There should be a synergy between traditional medicine practice and the orthodox counterpart for the safety of human life, one should not work in isolation. It has been observer that some of the orthodox drugs have the traditional origin, medicinal plant should be embrace. The results obtained from this study compliment earlier observations by Rotimi *et al,.* (1988), Akande and Hayashi (1998) and Adekunle and Odukoya (2006) and thus giving the reasons why these plants are suitable for use. Conclusively, the quantification and qualification of the phytochemicals in these medicinal plant should be the object of discussion in our day to day life.

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