Plants and treatment of prostatic diseases in Foumban (West Region, Cameroon)

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Abstract

Prostatic diseases, named "Keken schienke" in Bamoun language (difficulty to urinate or dysuria), are known by the traditional healers of the Foumban area. The field work permitted us to collect 40 plant species belonging to 29 families. They serve to prepare 27 remedies used to treat prostatitis (15 recipes), adenoma of prostate (5) and cancer of prostate (7). Two plants (Raphia mambillensis and Vernonia guineensis) are those used for the 3 types of prostatic diseases, the more valued being Vernonia guineensis, called “Guinea ginseng” by traditional healers.

Key words: Medicinal plants, prostatic diseases, Foumban, Cameroon.

Introduction

The prostate, gland situated rightly under the bladder in the junction of the urinary and the genital ways, is part of the masculine genital apparatus (Fig. 1). Three diseases develop in that gland: prostatitis (inflammation of the gland), prostatic adenoma (benign tumour leading to adenofibromyoma hypertrophy), and cancer of prostate (malign tumor) (De la Taille, 1998; Navratil, 1998). The prostatic diseases are known by the Bamoun people. They are called "Keken schienke" (hard urine translating the difficulty to the micturition or dysuria). The diagnosis is based on the symptoms of trouble of urine emission: hindrance to urinate in the morning, sometimes haematuria (adenoma); painful prostate, trouble of micturition and haematuria (cancer); painful prostatic and sometimes presence of an abscess; dysuria, slow, laborious micturition, small and retarded urine jet (prostatitis). These different symptoms correspond to the criterias of the clinical signs mentioned by Zeyon (1968), Le Garnier Delamare (1994), De la Taille (1998), Lebret and Botto (1999). The traditional treatment of the prostatic diseases can be found in the Cameroonian ethnobotanical literature, with Ziziphus spina-christi (L.) Defr. (Adjanohoun et al., 1996) and Prunus africana (Hook. f.) K. Schum. (Cunningham and Mbenkum, 1993, Schippman, 2001), as well as in the African related literature, with Euphorbia laterifolia in Mali (Adjanohoun et al., 1978). But this documentation seems to be poor for a plurality of pathology in which only prostate cancer ranks second worldwide in terms of mortality, after the cancer of the lung (Lopez and Perrin, 1999). The diseases of prostate, very frequent in men of more than 50 years, certainly exist in the population of the Foumban subdivision, West Cameroon. And they have developed phytotherapy for them.

Field of study

The Foumban subdivision (5°43'-5°43' North latitude and 10°53'-10°55' Est longitude) spreads on 7000 ha (Fig. 2), on 900-1200 m of altitude on average (Suchel, 1972). Vegetation belongs to the dense deciduous forest, in the Guinea Congolese area, Guineo-sudanian sector, sometimes sub-mountain (1200-1600 m) with shrubby savannas with Terminalia glaucescens (Letouzey, 1985). The climate is of the Cameroonian equatorial type, which is that of the higher lands of the West and the North-West. Two seasons share the year: a dry season (mid-November at mid–March) and a rainy season of 8 months (Fig. 3). The rainfall is on an average of 1800 m per year.

The population of the subdivision was about 167000 in 2001-2002 (Noun Departmental Delegation of the Ministry of the Plan and Territorial Management), with 110000 in the Foumban town and 57000 in the rural zones. The inhabitants are mostly autochthonous Bamoun, Haoussa, Bororo, and Bamiléké. Greater part of them is Muslims, but there are also Christians and animists (Kpwang, 2001). The Bamoun society is managed on a strongly hierarchical organisation, based on the
Muslim tradition. The head of the community is a Sultan. The daily means of existence comes from agriculture, the craft industry and rearing. Coffee (Coffea arabica L., Rubiaceae) is one of the basic income-generating agricultural products.

**Research Method**

The field works were done in 2007-2008 through interviews based on two questionnaires having semi-open questions addressed to the traditional healers of Foumban town and those of the Nkoussam and Nkoundja villages, as well to the patients (old or under treatment) living in the subdivision. At every moment, the interviewees were informed of the objectives of the survey as well as of the indications on the content of the questionnaire that were being administered. To the patients aged 30 to 70 years, the questions were relative to their domestic statute, their knowledge of the illnesses, the length of the illness and the recipe being used. To traditional healers, the questions dealt with their knowledge of the types of prostatic illnesses, the plants and recipes used, the number of cases already treated.

After some explanations, the anonymous questionnaire was given to be filled to those who could either have it filled by an author through a non-oriented conversation (made at random); no direct questions were asked in order to prevent biased answers and avoid compromising spontaneity. Every information that came out during the conversation was transferred to a structured form in the questionnaire. The method being adopted followed the criteria outlined by Johns et al. (1990), Hedberg (1993), Waller (1993) and Bruni et al. (1997) in conducting interviews.

**Vegetal Material**

The traditional healers who had cooperated to this work showed the plants used to treat the prostatic illnesses, and indicated the various recipes and some patients treated or under treatment. A numeric camera permitted to fix the pictures of the plants whose parts had been harvested like voucher specimen. Plant classification and nomenclature follow those of Flore du Cameroun (Aubréville 1963-1997), Vivien & Faure (1985), Bihilong (1986) and Lebrun & Stork (1991-1997).

Based on the work of Bruni et al. (1997), where the Exploitation Index (EI) concerns all the ethnopharmacological data of a region, we deducted the Usage Index (UI) relative to the ethnopharmacological data of an illness in a given site. So, the evaluation of the number of medical preparations and the determination of the percentage of plants found in the Foumban subdivision, that are actualized for medicinal treatment of prostatic ailments, may provide a good indication of the degree of phytotherapeutic usage. Hence, the Usage Index (UI) was calculated using the formula:

\[
UI = \%Pm \times AMP
\]

where \%Pm is the percentage of plants used for prostatic diseases and AMP the average number of medicinal preparation per plant. This method makes it possible to readily compare the information gathered on the same site or on
different sites, in a mathematical manner, about the same disease or different diseases. Moreover, by applying this approach, it would be possible to make an objective comparison of ethnopharmacological data obtained from various sites worldwide.

In the present study, voucher herbarium specimens were prepared and deposited in the Department of Biological Science of the University of Yaoundé I, where there is also a complete record of the interviews that were conducted.

The results of the investigations were computerised to better organize the final document.

Results

The prevalence rate of prostatic illnesses is not available in Cameroonian hospitals. It is reported that hospitals only rely on surgical treatments, which are very costly in respect to the low incomes of the population. The patients therefore prefer local traditional medicine. The population being interviewed was made of 15 traditional healers (4 of whom were women) and 10 male patients, distributed as followed: a) 3 individuals of 35-45 years old, sick of prostatitis; b) 4 individuals of 45-60, sick of prostate adenoma; c) 2 individuals of more than 60, sick of prostate cancer. The adenoma and the cancer of prostate are more frequent to people of more than 60 years old. Some preparations present some efficiency for up to 70% of the patients.

Plants treating prostatic diseases

The informants agreed to publish the investigation results as their contribution to the survey of the Bamoun pharmacopoeia. The plants collected are grouped in Table 1, column 2, in respect to the type of prostatic illness treated and the number of plants used in the preparation. The plant is presented in botanical name/family/local name (with the number of the voucher specimen of an author).

Forty species belonging to 29 families have been listed. The family of the Asteraceae is the most important with 10% of species, followed by those of the Liliaceae with 7.5% of species. The three recipes with Prunus africana (Fig. 4) reach 21.6% of quotations. Vernonia guineensis (Fig. 5A), used in all prostatic illnesses, is present in 8 preparations with 35.2% of total quotations, followed by the quotations of Aloe barteri (Fig. 5B), Citrus aurantifolia and Euphorbia laterifolia (Fig. 5C).
### Table 1. Recipes used in the treatment of prostate illnesses.

<table>
<thead>
<tr>
<th>Plant species/Family/Local name/Voucher specimen number / plant part used</th>
<th>Mode of use</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aloe barteri Baker/ Liliaceae/ Toukouyex (Yumdin 87): 3 big leaves of about 3 years cleared of spines. Aloe barteri</strong></td>
<td>2 handfuls of dried leaves boiled in 1 L of water for 10 min, the mixture infused during 24 H and the solution drunk: 1 glassful 3 times a day. <strong>Nota bene.</strong> Always shake the mixture before using.</td>
<td>the past of leaves is mixed to the honey and the local rum and the mixture eaten: 2 spoonfuls 30 min before meal 3 times a day.</td>
</tr>
<tr>
<td><strong>Cissus quandrangularis L./ Vitaceae/ Ndi nkàka (Yumdin 75): a stem of 30 cm in length, cutted</strong></td>
<td>the cutted ingredients boiled in 2 L of water for 15 min and the cooled decoction drunk: 1 glassful 3 times a day. <strong>Nota bene.</strong></td>
<td>the cutted stem is macerated in 1.5 L of water for 3 days and the solution drunk: 1 soup spoonfuls 3 times a day.</td>
</tr>
<tr>
<td><strong>Euphorbia lateriflora Schum. &amp; Thonn./ Euphorbiaceae/ Pon là nschùm (Yumdin 06): a stem of 30 cm in length</strong></td>
<td>the pounded stem bark boiled in 5 L of water for 15 min and the cooled whitish decoction is drunk: 1 glassful before meal 3 times a day. <strong>Nota bene.</strong></td>
<td>The plant elements cuted and macerated in 5 L of water, the mixture placed on the sun for 12 H and the maceration drunk: 1 glassful day.</td>
</tr>
<tr>
<td><strong>Ipomoea batatas (L.) Lam./ Convolvulaceae/ Babelè (Yumdin 09): 4 handfuls of leafy stems</strong></td>
<td>the pounded tubers boiled in the raphia-wine for 10 min and the cool solution drunk: 1 glassful before meal 3 times a day. <strong>Nota bene.</strong></td>
<td>the 2 ingredients are mixed and 1 teaspoonful added in a cupful of corn paff thrice a day, before eaten</td>
</tr>
<tr>
<td><strong>Vernonia guineensis Benth./ Asteraceae/ Mgbu kwet (Yumdin 86): 20 fresh tubers</strong></td>
<td>the 2 ingredients are mixed and 1 teaspoonful added in a cupful of corn paff thrice a day, before eaten</td>
<td>the plant elements ground in paste (a small quantity of water added) is divided in 9 balls, and 1 ball swallowed per day.</td>
</tr>
<tr>
<td><strong>Citrus aurantiifolia Swingle/ Rutaceae/ Lemu me shùe shùe (Yumdin 44): 2 fruits</strong></td>
<td>the mixture of Allium cepa and <em>Daucus carota</em> is introduced in 1.5 L of water and passed throughout a clean tissue. The obtained liq added with the juice of <em>Citrus aurantiifolia</em> and the honey and the solution drunk: 2 glassfuls before meal 3 times a day. <strong>Nota bene.</strong> The preparation can be converted to 3 day.</td>
<td>the plant elements ground in paste (a small quantity of water added) is divided in 9 balls, and 1 ball swallowed per day.</td>
</tr>
<tr>
<td><strong><em>Daucus carota</em> L./ Apiaceae/ Carotte (Yumdin 76): 1000 g of ground tubers + Honey : 250 mL</strong></td>
<td>the mixture of Allium cepa and <em>Daucus carota</em> is introduced in 1.5 L of water and passed throughout a clean tissue. The obtained liq added with the juice of <em>Citrus aurantiifolia</em> and the honey and the solution drunk: 2 glassfuls before meal 3 times a day. <strong>Nota bene.</strong> The preparation can be converted to 3 day.</td>
<td>the plant elements ground in paste (a small quantity of water added) is divided in 9 balls, and 1 ball swallowed per day.</td>
</tr>
</tbody>
</table>
### Prostate adenoma

- **Prunus africana** (Hook. f.) Kalkm/ Rosaceae/ Lumty (Yumdin 83): 2 handfuls of stem bark

  - Powdered stem bark

  - The pounded stem bark boiled in 3 L of water for 15 min; the mixture infused for 24 H is through a sieve and the solution drunk: 1 glassful 3 times a day.

- **Prunus africana**: powdered stem bark

  - A teaspoonful of stem bark powder is added in a cupful of corn paff and the mixture eaten: 3 times a day.

- **Prunus africana**: 250 g of dried stem bark

  - **Pteleopsis hylodendron** Mildbr./ Combretaceae/ Sikon (Yumdin 93): 250 g of dried stem bark

  - **Vernonia guineensis**: 500 g of dried tubers

  - The powdered plant elements boiled in 5 L of water for 15 min and the cold decoction drunk: 1 glassful 3 times a day.

  - **Coccinea barteri** (Hook. f.) Kayey/ Cucurbitaceae/ Lànkwet (Yumdin 77): 50 g of leaves

  - **Eryngium foetidum** Schum. & Thonn./ Apiaceae/ Fünue (Yumdin 10): 50 g of leaves

  - **Euphorbia lateriflora**: 2 stems of 30 cm in length

  - **Raphia manbillensis**: 2 L of raphia wine

  - All ingredients are boiled for 10 min and the cool solution drunk: 1 glassful 3 times a day.

### Cancer of prostate

- **Cucurbita pepo** L., ou **C. maxima** Duchesne ex Lamark/ Cucurbitaceae/ Shùem (Yumdin 89) ou **Cumeropsis mannii** Naud. (Egussi) (Cucurbitaceae): seeds

  - The regularly eating of seed almond in soup, meal or in rough form has a prophylactic or curative action on cancer of prostate.

- **Acanthus montanus** (Nees) T. Anders./ Acanthaceae/ Fonzem (Yumdin 91): 3 leaves cleared of spines and cutted

  - The ingredients mixed and prepared as a meal eaten 4 times a day.

- **Arachis hypogaea** L./ Fabaceae/ Pirien (Yumdin 45): a half a glassful of peanut crushed

  - The ingredients mixed and prepared as a meal eaten 4 times a day.

- **Aloe barteri**: 4 leaves

  - **Phragmanthera capitata** (Sprengel) S. Balle/ Loranthaceae/ Gui (Yumdin 35): 4 leaves parasite of bush plants (Dracaena arboresa, pennicium purpureum)

  - **Vernonia guineensis**: 2 dried tubers

  - Local rum or Hâ: 1.5 L

  - The plant elements are ground in paste mixed with local rum for 2 weeks and the solution drunk: 1 soup spoonful in half a glassful of water thrice a day.

- **Capsicum frutescens** L./ Solanaceae/ Yiwuoh messi (Yumdin 07): 18 fruits

  - The plant elements mixed, boiled for 15 and the cool solution drunk: 1 glassful 3 times a day.

- **Citrus aurantiifolia**: 7 leaves and 3 fruits

  - The salt of *Musa* sp. mixed with the cuted plant elements, the mixture boiled in 3.5 L of water for 10 min and infused for 24 H and the solution drunk: a glassful 3 times a day.

- **Annickia chlorantha** (Oliv.) Selten Maas.P.S.M./ Annonaceae/ Mfol (Yumdin 07): 50 g of stem bark

  - All ingredients dried, powdered and 1 teaspoonful in hot cupful of paff or hot water 3 times a day.

### Notes

- The solution can be conserved for 2 days.

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**Table (next)**

<table>
<thead>
<tr>
<th>Prostate adenoma</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prunus africana</strong> (Hook. f.) Kalkm/ Rosaceae/ Lumty (Yumdin 83): 2 handfuls of stem bark</td>
</tr>
<tr>
<td><strong>Prunus africana</strong>: powdered stem bark</td>
</tr>
<tr>
<td><strong>Prunus africana</strong>: 250 g of dried stem bark</td>
</tr>
<tr>
<td><strong>Pteleopsis hylodendron</strong> Mildbr./ Combretaceae/ Sikon (Yumdin 93): 250 g of dried stem bark</td>
</tr>
<tr>
<td><strong>Vernonia guineensis</strong>: 500 g of dried tubers</td>
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<tr>
<td><strong>Coccinea barteri</strong> (Hook. f.) Kayey/ Cucurbitaceae/ Lànkwet (Yumdin 77): 50 g of leaves</td>
</tr>
<tr>
<td><strong>Eryngium foetidum</strong> Schum. &amp; Thonn./ Apiaceae/ Fünue (Yumdin 10): 50 g of leaves</td>
</tr>
<tr>
<td><strong>Euphorbia lateriflora</strong>: 2 stems of 30 cm in length</td>
</tr>
<tr>
<td><strong>Raphia manbillensis</strong>: 2 L of raphia wine</td>
</tr>
</tbody>
</table>

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<tr>
<th>Cancer of prostate</th>
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</thead>
<tbody>
<tr>
<td><strong>Cucurbita pepo</strong> L., ou <strong>C. maxima</strong> Duchesne ex Lamark/ Cucurbitaceae/ Shùem (Yumdin 89) ou <strong>Cumeropsis mannii</strong> Naud. (Egussi) (Cucurbitaceae): seeds</td>
</tr>
<tr>
<td><strong>Acanthus montanus</strong> (Nees) T. Anders./ Acanthaceae/ Fonzem (Yumdin 91): 3 leaves cleared of spines and cutted</td>
</tr>
<tr>
<td><strong>Arachis hypogaea</strong> L./ Fabaceae/ Pirien (Yumdin 45): a half a glassful of peanut crushed</td>
</tr>
<tr>
<td><strong>Aloe barteri</strong>: 4 leaves</td>
</tr>
<tr>
<td><strong>Phragmanthera capitata</strong> (Sprengel) S. Balle/ Loranthaceae/ Gui (Yumdin 35): 4 leaves parasite of bush plants (Dracaena arboresa, pennicium purpureum)</td>
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<tr>
<td><strong>Vernonia guineensis</strong>: 2 dried tubers</td>
</tr>
<tr>
<td><strong>Local rum or Hâ: 1.5 L</strong></td>
</tr>
<tr>
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<td><strong>Citrus aurantiifolia</strong>: 7 leaves and 3 fruits</td>
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<td><strong>Annickia chlorantha</strong> (Oliv.) Selten Maas.P.S.M./ Annonaceae/ Mfol (Yumdin 07): 50 g of stem bark</td>
</tr>
</tbody>
</table>

**Notes**

- The solution can be conserved for 2 days.
**Presentation of different recipes**

The phytotherapy recipes are classified according to the type of prostatic illnesses treated, the alphabetical order of botanical names and the number of species used in a preparation. Non-botanical ingredients are also presented. Twenty-seven recipes are used in the treatment of prostate diseases. The number of species, by preparation, goes from 1 to 8, the maximal associations being for cancer treatment.

**Quantitative data of prostate treatment**

The Table 1 summarizes the quantitative data in the first line. The result presents an exploitation discriminating the plant resources according to the average of plants by preparation (2.48). The Usage Index of flora (UI) of this work can be extrapolated from the perspective of Bruni et al. (1997). There are 8000 vascular plant species in Cameroon (Letouzey, 1978). The UI of flora by the traditional healers of Foumban for the treatment of the prostate is: \( UI = \frac{40}{8000} \times 100 \times 1.67 = 0.83 \) (the percentage of the 40 plant species out of 8000, multiplied by 1.67, which is the therapeutic preparation average by plant).

**Table 2. Distribution of the number of prostate illnesses types treated, in respect with traditional healers.**

<table>
<thead>
<tr>
<th>Traditional healers (age in years)</th>
<th>Prostatic diseases treated</th>
<th>Number of treated patients</th>
<th>Duration of treatment</th>
<th>N° Recipes used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phyto A (48)</td>
<td>Prostatitis</td>
<td>5</td>
<td>Until healing</td>
<td>2,13</td>
</tr>
<tr>
<td>Phyto B (53)</td>
<td>Cancer of prostate</td>
<td>7</td>
<td>1 – 3 months</td>
<td>22,27</td>
</tr>
<tr>
<td>Phyto C (67)</td>
<td>Cancer of prostate</td>
<td>5</td>
<td>Until healing</td>
<td>25</td>
</tr>
<tr>
<td>Phyto D (65)</td>
<td>Prostatitis, Adenoma of prostate</td>
<td>4</td>
<td>1 – 3 months</td>
<td>8,21,24,26</td>
</tr>
<tr>
<td>Phyto E (45)</td>
<td>Adenoma of prostate</td>
<td>2</td>
<td>Until healing</td>
<td>18</td>
</tr>
<tr>
<td>Phyto F (57)</td>
<td>Prostatitis</td>
<td>3</td>
<td>Until healing</td>
<td>3,4,5,7</td>
</tr>
<tr>
<td>Phyto G (54)</td>
<td>Adenoma of prostate</td>
<td>3</td>
<td>1 – 3 months</td>
<td>16</td>
</tr>
<tr>
<td>Phyto H (67)</td>
<td>Adenoma of prostate</td>
<td>7</td>
<td>1 – 3 months</td>
<td>9,11,19</td>
</tr>
<tr>
<td>Phyto I (140)</td>
<td>Prostatitis, Prostatitis</td>
<td>2</td>
<td>1 – 3 months</td>
<td>14</td>
</tr>
<tr>
<td>Phyto J (45)</td>
<td>Prostatitis</td>
<td>2</td>
<td>1 – 3 months</td>
<td>1</td>
</tr>
<tr>
<td>Phyto K (48)</td>
<td>Adenoma of prostate</td>
<td>3</td>
<td>1 – 3 months</td>
<td>17</td>
</tr>
<tr>
<td>Phyto L (52)</td>
<td>Adenoma of prostate</td>
<td>2</td>
<td>Until healing</td>
<td>19</td>
</tr>
<tr>
<td>Phyto M (51)</td>
<td>Prostatitis</td>
<td>3</td>
<td>1 – 3 months</td>
<td>12</td>
</tr>
<tr>
<td>Phyto N (49)</td>
<td>Prostatitis</td>
<td>3</td>
<td>1 – 3 months</td>
<td>6</td>
</tr>
<tr>
<td>Phyto O (56)</td>
<td>Prostatitis</td>
<td>6</td>
<td>Until healing</td>
<td>5</td>
</tr>
</tbody>
</table>

**Traditional healers and treatment**

The data collected from the 15 traditional healers are presented in Table 2; Column 1 includes the codes, the traditional healers. Then in the other columns: the type of prostatic illness treated the number of cases treated, the length of treatment and the recipe used. With the help of those traditional healers, we met 10 old and new patients in the Foumban subdivision. Only 3 patients could recognise the preparations used. Five patients (adenoma and cancer) had micurition improvement for 1-2 years or more after the treatment and 1 case of cancer was still resisting to the treatment.

**Discussion**

Forty plant species treating prostatic illnesses have been collected and documented. Among them, only *Garcinia afzelii* (Fig. 5D) is new in the Cameroonian medicinal plant literature (Cousteix, 1961; Esso et al., 1994; Kingue et al., 1988; Noumi and Yomi, 2001; Noumi and Fozi, 2004). The use of these plant species is similar to those being used in other regions to treat prostate, and this indicates the authenticity of their potential uses in the treatment of the gland: *Ziziphus spina-christi* in Ngamoundéré (Adjanohoun et al., 1996) and *Prunus africanaus* in Bengwi (Cunningham and Mbekum, 1993), in Cameroon; *Euphorbia laterifolia* (Adjanohoun et al., 1978) in Mali.

The experimental literature gives some supports to the plant species use against the illnesses of prostate. The treatment is done according to the type of the illness.

1. Cancer. The treatment is especially carried out by means of oestrogen therapy and anti-cancerous substances.

Oestrogen therapy. Among some female hormones, estrogens have an extraordinary activity on the cancer of the prostate. The results of the oestrogen therapy are really stupendous. They actually make the metastases regress considerably (Zeyon et al., 1968). This is due to the action of *Arachis hypogaea*, an oestrogen factor that is soluble in oil (Adrien and Jacquot, 1968). Dishes saturated in raw palm oil are traditional meals in the North-West, South-West and West Regions of Cameroon: the "Hehro ", a sauce made of the leaves of *Gnetum africanum* L. (Gymnosperme); the "Kondscha ", maize and bean boiled; the "Ashu ", tubers of taro crushed, eaten with yellow sauce or "Nahpoh ", which is a raw palm oil emulsion (Noumi and Valet, 1987). It was reported that in these Regions, prostate illnesses are not frequent, and when they exist, they are often reduced to cases of prostatitis. In fact, the palm oil that is mostly used in these regions is rich in sterol: ergosterol (or provitamine A) and in oestrogen (oestrogen or folliculine) (Kerarho and Adam, 1974).

Uses of anti-cancerous substances. *Cucurbita pepo* (Fig. 5E) and *C. maxima* (like all other *Cucurbitaceae*) are characterised by the presence of the bitter principles of cucurbitacines (Watt and Breyer-Brandwijk, 1962). At the experimental level, these cucurbitacines reveal some anti-tumorous properties on the cancerous tumours. The cucurbitacines D, E and I of *Cucurbita pepo,*
Ipomoea batatas aureus. Its seeds extract has antimicrobial activity against different positive and negative Gram bacilli and mycobacterium (Nickel, 1959). The leaf essence is also a good remedy against catarrhs, especially genitourinary.

2. Adenoma. Some adenomas of weak volume are not very complicated and embarrassing to the patient and can be treated medically, notably by means of anti-spastic, male and female hormones, tranquillisers, diets avoiding stimulants and spices. Ocimum basilicum (Fig. 4) is used to manufacture drugs against the adenoma of prostate (Cunningham and Mbekum, 1995). The treatment requires antibiotics, to sufficient doses and for long intake, and to which the germ responsible is not resistant.

Allium cepa. Once it is cooked, this raw onion is reputed diuretic, hypoglycaemic. The juice of onion is bacteriostatic (Paris and Moyse, 1971).

Allium sativum. The juice of garlic possesses some bacteriostatic properties. The active principle, allicine, is active in vitro on the rate of 1|100000 against different positive and negative Gram bacteria (Staphylococci Streptococci, intestinal Bacteria) (Kerarho and Adam, 1974).

Carica papaya. The roots and leaves of are prescribed in the chronic gonorrhea with urethral shrinkage and painful micturitions. The seeds are active against Escherichia coli and Staphylococcus aureus (Georges and Pandalai, 1949).

Ipomoea batatas (Fig. 5F). The aqueous and methanolic extract of the whole plant, leaves, tubes would be active against the Gram+ and Gram - bacilli (Nickel, 1959).

Ocimum basilicum. The leaf essence is also a good remedy against catarrhs, especially genitourinary. Its seeds extract has antimicrobial activity against positive Gram bacilli and mycobacterium (Nickel, 1959).

Antiviral

Ammickia (Enantia) chloranta. The stem bark contains protoberberins that have preventive and curative effects on hepatic illnesses and some forms of ulcer; they also show some anti-VIH activity (Wafo et al., 1999).

Alchornea cordifolia. Good results are obtained in the treatment of the jaundice in using preparations of roots, leaves or stems (Guadel, 1955).

Pteleopsis hylocondron. For a woman suffering from herpes (Edip in Beti language), she has transparent bladders on the genital mucous membranes and successive abortions (genital herpes). Sometime it causes successive deaths of infants (herpes of the breasts). Those symptoms disappear with the treatment using the decoction of Pteleopsis hylocondron. Then the woman can procreate, delivering children in good health. We had the opportunity to observe 14 patients after their treatment, for 10 years (1997-2007). They did not show signs of illness anymore.

The Usage Index (UI) of the plant species for the treatment of prostate in the Foumban area is estimated at 0.83. It is also important than the UI found in Foumban (0.82) relative to kwashiorcor phyotherapy (Noumi & Mpemboura, 2007), more important than the one for the treatment of sinusitis in the Babimbi region (UI = 0.18) (Noumi and Ngo Babang, 2006), the one concerning abortions in the Buea area (UI = 0,33) (Noumi and Njeumen, 2007), and the one relating to the treatment of erectile impotence in Okola (UI = 0,62) (Noumi, 2004). Several plant species are used in a great number of preparations for the treatment of prostate illnesses, with a coefficient of 2.48 plant species by recipe. Another high value of coefficient (2.27) is reached concerning kwashiorkor treatment in the same area (Noumi and Mpemboura, 2007). This result indicates a good use of the phytotherapy resources to reduce those illnesses.

Seven to over 10 patients (70%) have got well (Table 2, column 4) while using the preparations or combination of preparations from 15 traditional healers. Among them, the patient n° 3 was treated using medicinal plants is put in evidence. The R25 recipe, made of 5 plants (with Vernonia guineensis), did not relieve prostate cancer of patient 8. This may be because the aged man began the treatment after 3 years, in a very advanced state of illness.

Conclusion

Prostate illnesses are known and traditionally treated in the Foumban subdivision, West Cameroon. The traditional healers of the area make efficient preparations with the plant elements and three non-vegetal ingredients. In many cases, these recipes constitute have proved to be efficient in the treatment of prostate illnesses, and to give back to the sick man his male dignity.
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References


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