A review of prostate diseases at yaounde: epidemiology, prophylaxy and phytotherapy

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A survey carried out on 361 patients recorded from 2008 to 2010 in the Service of Urology and Andrology of the Yaoundé Central hospital shows that 40.72% of cases are due to the prostatic ailments, in which 29.64% of cancer or adenocarcinoma of prostate (ADK). The analysis of the information gathered from 50 patients permitted to raise 9 risk factors of prostatic illnesses and the most elevated age is the major factor. Reports on plants used from 30 phytotherapists yielded 265 quotations, about 33 medicinal plant species belonging to 24 families, which are used to prepare 26 different remedies to treat each prostatitis, prostate adenoma and prostate cancer.

Keywords: Prostate diseases, Biomedical data, Ethnobotanical survey, Phytomedicines, Yaoundé, Cameroon

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The prostate is a small gland of the size of a palm walnut, placed at the urinary and genital cross roads and existing only at the man (Fig. 1). It is a masculine genital gland appendage whose secretions contribute to form the seminal fluid. It serves to manufacture the secretions that are going to enter in the composition of the semen. It is there its only role, and yet, it is the seat of three illnesses:

- Prostatitis or prostate infection.
- Adenoma or hypertrophy (tumour) benign of the prostate (HBP). The central prostate that surrounds the urinary way compresses it when it increases volume, dragging then a hindrance to the emission of urines. It is from this central prostate that the adenoma develops itself. It has anything to see with cancer and never becomes cancerous.
- Cancer of the prostate or shrewd tumour of the prostate or adenocarcinoma (ADK). The peripheral prostate surrounds the prostate central. It is him that gives birth to cancer and it never gives an adenoma.

All these illnesses have for common denominator the troubles of the micturition. Knowledge of these by the phytotherapists is vague to the point that they don’t give any appropriate scientific terminology. The traditional healers designate prostate illnesses as:

- "Eyelfam" in Ewondo language or difficulty of micturition by a person who stopped sexual activity too early;
- "Okon be nyaboto" or "Menyolock be nyaboto" in Bulu language meaning respectively: the illness or gonorrhoea of aged man;
- "Sat" in Medûmba or Bangangté language meaning difficult micturition, pertaining to urination resistance for the man with or not haematuria;
- "Keken schienke" in Bamoun language, or difficulty to the micturition or pollakiuria.

However, these terminologies translate the symptoms of the three types of prostatic affections as summarized by Le Garnier Delamare®. Some studies have been approached on the epidemiological aspects of cancers in Cameroon® and other under the curative aspect of the plants®. In the hospitals of Cameroon, the treatment of ADK or HBP especially is done by a surgical intervention, radiotherapy with sterility or erectile defect as side effects of these undesirable side effects many under these circumstances search for alternative medicines from traditional healers.

Psychosis reigns among the masculine people facing these almost uncontrollable complex prostatic illnesses. The masculine physiology presents many
auspicious factors to the apparition of urinary unrest bound to the dysfunction of the prostate. The problem is to identify the environmental and dietary factors that raise the risks or that protect the sick persons. Are there remedies treating prostatic illnesses in the therapeutic arsenal of the traditional healers?

Face the poor knowledge about the topic in the study area, the goal of the survey is to determine the need of information of people aged above 40 yrs, about prostate illnesses, to document the plants and the therapeutic preparations used for their treatment as practiced in the city of Yaoundé by traditional healers.

The study area is Yaoundé (11°25'-1135 'N and 3°40'-3°70 'E), the capital of Cameroon, situated to a middle altitude of 750 m. The city has an equatorial climate of the Guinean domain with 4 seasons. The annual averages of rainfall and the temperature are 1700 ml and 23.5°C, respectively.

Yaoundé is the native land of the Ewondo’s, one of the 3 Béti subtribes (with Boulou and Eton). The traditional language is the Ewondo. The population, cosmopolitan, reached 1,881,876 inhabitants in 2010, either 9.7% of the total population of Cameroon. The vegetation of the region is deeply a mixed secondary forest.

Methodology

The fieldwork was done from October 2008 to April 2010. The investigations are led following 3 questionnaires with semi-open questions:

- to patients registered in the service of Urology and Andrology of the Yaoundé Central Hospital of Yaoundé to appreciate the morbidity of prostatic diseases in that health unit;
- to the phytotherapists to gather information on herbal remedies and to collect plant species used;
- to the aged women for appreciation of the rhythmic sexual intercourse and food habits of the couples.

Information on diseases was obtained through casual conversation (30 traditional healers, 50 patients and 100 women). No direct questions were asked in order to prevent biasing the answers and compromising spontaneity. Every information that came out during the conversation was transcribed thereafter on the structured form, constituted by the questionnaire. These forms were then used to prepare a list of therapeutics Recipes used to treat prostatic ailments. The results of the investigations were computerized to better organize the final document. The criteria outlined by many authors were followed in conducting the interviews.

The phytotherapists who cooperated in this work indicated the Recipes used and showed the plants used to treat prostatic illnesses. A digital camera permitted to fix the pictures of the plants whose parts have been harvested as samples types. Plant classification and nomenclature follow those of Flora of Cameroon, Lebrun & Stork, Vivien & Faure and Biholong.

The herbarium specimens’ voucher of the present study were prepared and deposited in the Department of Biological Science of the University of Yaoundé I. A complete record of the interviews is also on file at the Department of Biological Science of the University of Yaoundé I.

Results

The morbidity pattern of the prostatic ailments at Yaoundé is given by a sample of 361 patients during 16 months (January 2008 to April 2009). These patients are registered in the service of Urology and Andrology of the central hospital of Yaoundé. Twenty different infections of the urogenital apparatus are listed. Among these patients, 147 cases (40.71%) are due to prostatic illnesses in which 29.64% cases of

Fig. 1—Position of the prostate in the male reproductive tract; lateral view. Source: Keeton and Gould, (1993)
cancer or adenocarcinoma (ADK) and 10.80% cases of benign hypertrophy of the prostate. Only one case of prostatitis because those sick persons are outpatients, not registered and treated with antibiotics. The other ailments of urogenital apparatus are varicocele (4.99), stenosis of urethra (4.44), tumour (0.83), testicular ectopia (0.56), testicular atrophy (0.27), nephropathy (0.27) and infectious syndrome post urethroplasty (0.27).

From October 2008 to March 2009, 50 of the 147 patients of prostatic ailments participated to the present survey (Table 1). They were all anxious of the fate that waited them, following the already undergone treatments: carrying of catheter to drain the bladder (17 either 34%), prostatectomy (10%), ablation of testes (8%), metastases (4%). one of them (patient n° 39) died after the surgical intervention.

The prostatic illness manifestations are numerous. The troubles of micturition constitute the common base of prostatic illnesses, the reduction of the strength of the urinary throw (72% of 50 patients), the delay of apparition of the throw (70%) and pollakiuria (70%), being the most frequent. However, other signs have been identified, notably:
- for the benign hypertrophy of the prostate: sub pubis pains (following a complete blockage of urines), hemorrhoid and inguinal hernia in the T3-T4 phase of the illness, prostatorrhoea;
- for the cancer of the prostate: lymphoedema of scrotum or of the lower members, asthenia, haemorrhoid and inguinal hernia in the T3-T4 phase of the illness, pelvic traumatism following an accident, prostatorrhoea, bony pains, presence of blood in the faeces, blackening of urines.
- Only one case of prostatitis with out-flow of a viscous liquid even in the absence of sexual intercourse, is diagnosed in the sample

The risks factors of prostatic illnesses reported the possible origins of prostatic illnesses according to the 50 patients of the Yaoundé Central Hospital. Seven major local factors are capable to encourage the apparition of prostatic illness.

1. Age is the most elevated risk factor (94%). The patients aged 50 - 75 yrs (90%) are those struck by the benign and shrewd tumors of the prostate. However, cancer of the prostate is the more represented infection (64%) that touches the class of age of 70 - 75 yrs old (24%). The prostatic adenoma hits in mostly patients of 50 - 65 yrs. These data go in the same sense with those of Zeyons\textsuperscript{21} and Pfeifer\textsuperscript{22} that show that the HBP and the cancer of the prostate are very frequent tumors at the man after 50 years, due to the magnification of the prostate. The average of age of the patients in the beginning of the illness is of 60 yrs.

2. The frequency of coitus is cited by 56% of patients. The cases of two patients (40 yrs, bachelor and 57 yrs, monogamist) caught our attention. Indeed, the first patient was a footballer who consumed drugs before his matches. After the game, it was necessary to sex with at least three different women to attenuate the effect of

<table>
<thead>
<tr>
<th>Age groups (x - centre of classes)</th>
<th>Prostatitis</th>
<th>Adenoma (benign hyperthrophy of prostate (HBP))</th>
<th>Cancer (adenocarcinoma ADK)</th>
<th>%Prostatic diseases</th>
<th>Number of patients (f)</th>
</tr>
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<tbody>
<tr>
<td>30 – 35</td>
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<td>45 – 50</td>
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<td>50 – 55</td>
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<td>55 – 60</td>
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<td>6</td>
<td>4</td>
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<td>60 – 65</td>
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<td>10</td>
<td>4</td>
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<td>65 – 70</td>
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<td>4</td>
<td>5</td>
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<td>70 – 75</td>
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<td>12</td>
<td>24</td>
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<td>75 – 80</td>
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<td>6</td>
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<td>80 – 85</td>
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<td>2</td>
<td>2</td>
<td>1</td>
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<td>85 – 90</td>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
<td>17</td>
<td>34</td>
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</tbody>
</table>

Table 1—Morbidity pattern of the prostatic ailments in the service of urology and andrology of the central hospital of Yaoundé (January 2008 to April 2009)
the drug. Married and 2 times divorced, today he is completely castrated and unmarried. The second regularly sexed with 3 to 4 partners per day. Today he has cancer of the prostate. These induced super-activities of the prostate would have driven to cancer.

3. Among the 50 interviewee patients at Yaoundé Central Hospital, 24% practiced masturbation. For example in the military, during training or missions, the sick prisoner n°18 (58 yrs old, 10 yrs of illness, HBP) who masturbated during the 20 yrs of his detention.

4. The quality of the non appropriate foods is cited by 68% of 50 patients interviewed. In this survey, the case of a sick N°30 (45 yrs, married, 3 months of illness) is remarkable. His food was essentially constituted of meat. At the period when we met him, the consumption of meat had as consequence urine retention. He had already undergone 3 surgical interventions of the prostate. The red cow meats, the animal greases and game are the more consumed and those that ate more greases of animal origin had a more elevated cancer risk than the others.

5. To size up the woman's influence in the health of the husband's prostate, a questionnaire is addressed to 100 women aged 42-75 yrs. It permitted to appreciate what the husband eats at home, and the impact of the menopause climacteric on the frequency of their coituses. During the period before climacteric 61% women had at least 1 coitus per month, and 26% quit coituses. After climacteric, 29% of women have at least 1 coitus per month and about 48% of the women stopped coituses. In brief, in January 2009, 48% of women interviewee stopped coituses. Theoretically 56% of husbands of the aged women interviewee nearly stopped making love, whereas their subsequently choked prostate, overflowed with secretions.

6. Heredity can also be considered like a factor of risk, because 18% of the patients have at least a sick parent. According to Pfeifer, the risk to develop a cancer of prostate is multiplied by two if a father (3 patient n°10, 12, 43), an uncle (1 patient n°32) or a brother (2 patient n°8, 50) has been reached. This risk is multiplied by 11 if three parents are reached. These family forms generally express themselves toward 40 yrs and justify a precocious tracking at the risk person. The case of nephew's (n°26) deceased at 55 years of cancer whereas the uncle's illness only occurs at 90 yrs old is remarkable.

7. Some of patients (8%) think that their illnesses are due to the mysticism: examples the sicks, 76 yrs (5 yrs of cancer of prostate) and 55 yrs, due to the disputes with their brothers about heritage. According to some traditional healers, prostate ailment can attack a young man who had sex with a married woman, as punishment.

The prophylaxis and phytotherapy were investigated by interviews with 30 traditional healers and 15 male patients. About 33 medicinal plant species generated a total of 265 quotations. The cumulative number of responses for individual plant species varied from 3 (e.g. Zea mays) to 15 (Cucurbita pepo). The range of the number of plant species cited per Recipe was 1 to 4. Plant species with less than 3 citations by informants were omitted from analysis.

The Plants treating prostatic illnesses are presented in Table 2 according to the alphabetical order of family. In this table the family of Cucurbitaceae is the most represented (20.83% of the species), then the Liliaceae (16.66%), the Asteraceae (8.33%) and the Myrtaceae (8.28%). Cucurbita pepo is the most quoted plant, followed in decreasing order by Vernonia guineensis, Vernonia thomsoniana, Allium cepa, Citrus aurantifolia and Baillonella toxisperma.

Plants retained are used to prepare 26 different remedies to treat each prostatitis, prostate adenoma and prostate cancer. Therapeutic preparations are listed in Table 3). This, latter shows the phytomedicines used. They 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. Three no-botanical ingredients are also presented. The number of species, by preparation, goes from 1 to 4, the maximal associations being for adenoma treatment.

Discussion

Thirty three plant species intervene in the preparation of 26 Recipes described with the parts of the plant used, the mode of administration, the method of preparation. Mono-prescriptions are frequent (50% of Recipes). The plant is often prescribed along with others. The plant parts used are more represented by leaves and seeds, 46.2% and 38.5%) of Recipes respectively and 84.6% of the phytomedicines are administered orally.
Among the plants, only *Punica granatum* is new in the Cameroonian medicinal plant literature\(^{23--26}\). 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: *Prunus africana* (Fig. 2) in Bengwi\(^{7}\), in Cameroon; *Euphorbia aterifolia*\(^{27}\) in Mali. The therapeutic uses of the *Vernonia guineensis* (Fig. 3) and *Prunus africana* to treat the prostatic illnesses are frequently reported in the study area.

The traditional medicine that previously reflected the ethno-cultural roots of a population is focused now a days on the conventional remedies. *Prunus africana* or Africa plum tree grows in sub-mountain and highlanders altitudes forests of Cameroon. The stem bark is the active part. It contains some compounds like beta-sitosterol that acts by inhibiting the factors of growth in order to adjust the proliferation of the cells\(^{28}\). One notes an increase of the urinary flux of the patients of HBP and a reduction of the post-pertaining to urination residue.

A medicine, the Tadenan that owes its efficiency to an extract of *Prunus africana* is more known.

Among the prostatic illnesses, cancer of prostate or adenocarcinoma (ADK) is the most frequent in men of more than 50 yrs. It often evolves slowly and many

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Table 2—Plants collected traditionally used by healers in the prevention and treatment of prostatic ailments

<table>
<thead>
<tr>
<th>N°</th>
<th>Families</th>
<th>Botanical names</th>
<th>Current name (and voucher specimen number) [number of quotations]</th>
<th>Prostatic illnesses treated</th>
<th>ADK</th>
<th>HBP</th>
<th>Prostatitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Apiaceae</td>
<td><em>Petroselinum sativum</em> Hoffm.</td>
<td>Parsley (Bouopda 30) [7]</td>
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<tr>
<td>2</td>
<td>Asteraceae</td>
<td><em>Vernonia guineensis</em> Benth.</td>
<td>Guinean ginseng (Bouopda 17) [13]</td>
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<td>+</td>
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<tr>
<td>3</td>
<td>Asteraceae</td>
<td><em>Vernonia thomsoniana</em> Oliv. &amp; Hiern.</td>
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<tr>
<td>4</td>
<td>Brassicaceae</td>
<td><em>Brassica oleracea</em> Oler.</td>
<td>Cabbage (Bouopda 40) [4]</td>
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<tr>
<td>5</td>
<td>Burseraceae</td>
<td><em>Dacryodes edulis</em> (G.Don) H.J.Lam.</td>
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<td>6</td>
<td>Capparaceae</td>
<td><em>Balcholzia coriaceae</em> Engl.</td>
<td>lion’s Cola (Bouopda 17)[3]</td>
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<td>7</td>
<td>Caricaceae</td>
<td><em>Carica papaya</em> L.</td>
<td>Papaya (Bouopda 7) [9]</td>
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<td>8</td>
<td>Chenopodiaceae</td>
<td><em>Beta vulgaris</em> L.</td>
<td>Beetroot (Bouopda 30) [5]</td>
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<td>9</td>
<td>Costaceae</td>
<td><em>Costus afer</em> Ker-Gawl.</td>
<td>cane of twin (Bouopda 9) [4]</td>
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<tr>
<td>10</td>
<td>Cucurbitaceae</td>
<td><em>Cucurbita maxima</em> Duch</td>
<td>Pumpkin (Bouopda 26) [13]</td>
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<tr>
<td>11</td>
<td>Cucurbitaceae</td>
<td><em>Cucumis melo</em> L.</td>
<td>Melon (Bouopda,46) [15]</td>
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<td>12</td>
<td>Cucurbitaceae</td>
<td><em>Lagenaria siceraria</em> (Molima) Standl.</td>
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<tr>
<td>13</td>
<td>Cucurbitaceae</td>
<td><em>Cucurbita pepo</em> L.</td>
<td>courgette, gourd (Bouopda 16) [15]</td>
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<td>14</td>
<td>Cucurbitaceae</td>
<td><em>Cococynthis citrulus</em> (L.) O. Ktze.</td>
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<td>Mimosaceae</td>
<td><em>Albizia zygia</em> (DC.) J.F. Macbr.</td>
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<td>Fabaceae</td>
<td><em>Arachishypogaeae</em> L.</td>
<td>Groundnut (Bouopda 14) [7]</td>
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<td>Fabaceae</td>
<td><em>Glycine soja</em> L.</td>
<td>soya beans (Bouopda 9) [3]</td>
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<td><em>Persea americana</em> Mill.</td>
<td>Pear (Bouopda 22) [7]</td>
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<td>19</td>
<td>Liliaceae</td>
<td><em>Allium cepa</em> L.</td>
<td>Onion (Bouopda 53) [17]</td>
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<td><em>Allium sativum</em> L.</td>
<td>Garlic (Bouopda 3) [18]</td>
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<td>21</td>
<td>Liliaceae</td>
<td><em>Allium porum</em> L.</td>
<td>leek(Bouopda 1) [8]</td>
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<td><em>Aloes barteri</em> Baker.</td>
<td>aloes vera (Bouopda 42) [10]</td>
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<td><em>Musanga cecropioiades</em> R. Br.</td>
<td>umbrella tree (Bouopda 53) [3]</td>
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<td>Myrtaceae</td>
<td><em>Eucalyptus saligna</em> Smith.</td>
<td>Eucalyptus (Bouopda 33) [3]</td>
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<td>Palmoil (Bouopda 15) [7]</td>
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<td>26</td>
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<td><em>Sesamum indicum</em> L.</td>
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<td>Ginger (Bouopda 6) [4]</td>
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</tr>
</tbody>
</table>
Table 3—Plants used to treat prostatic diseases: Classification by 3 types of prostatic diseases treated (a), by number of plants used (b) and the 33 phytotherapeutic preparations (c).

<table>
<thead>
<tr>
<th>Recipes number (a)</th>
<th>Plant species/family/current name/voucher specimen number : plant part used (b)</th>
<th>Mode of uses (c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Recipes = 26</td>
<td>- Total plant species = 33</td>
<td>Total of medicinal preparations = 33</td>
</tr>
<tr>
<td>Total phytotherapists = 30</td>
<td>- Total quotations of plant ingredients in all Recipes = 46</td>
<td>Average of medicinal preparation per plant (AMP) = 1.3</td>
</tr>
<tr>
<td>Total quotations = 265</td>
<td>- Percentage of plant parts in all ingredients used: leaves (26%), seeds (21.7%), fruits (19.5%), bark (15.2%), tuber (13%).</td>
<td>Methods of preparations of the phytomedicines: decoctions 27%, mode of administration is largely (22)</td>
</tr>
<tr>
<td>Total quotations/phytotherapists = 8.84</td>
<td>- No plant ingredients: honey, local rum or Odontol, rock salt</td>
<td>-qs (Latin quantum satis, French qsp</td>
</tr>
</tbody>
</table>

Recipies treating prostatitis

Recipe 1 - *Allium cepa*: 1 big bulb of onion, minced
- the onion is infused in 1 glassful of hot water for 24 hrs, and the solution drunk: once a day for 2 months
- the onion is eaten as salads, preferably with olive oil.

Recipe 2 - *Allium porum*: 3 leafy plants
The cut ingredients are boiled in 2 L of water for 15 min, and the cooled solution drunk: 250 ml 2 times a day for 2-3 months.
- the sesame oil is drunk: 1 spoonful twice a day for 2-3 months.
- the seeds are regularly added in the soup.

Recipe 3 - *Sesamum indicum*: seeds
The ingredients are cooked in 1 L of water for 5 to 10 min, and the mixture spread on a gauze tissue in large compress rolled up and applied on the sick parts Bandage the poultice for 2-3H before removing, once a day for 2 months.

Recipe 4 - *Allium cepa*: 2 bulbs of onion
- *Brassica oleracea*: 2 green leaves minced
- *Zea mays*: 4 handfuls of grain powder
The ingredients are cooked in 1 L of water for 5 to 10 min, and the mixture spread on a gauze tissue in large compress rolled up and applied on the sick parts Bandage the poultice for 2-3H before removing, once a day for 2 months.

Recipe 5 - *Cucurbita pepo*: seed almond
The 2 solutions are mixed and drunk in the morning on an empty stomach, and in the evening before going to the bed.
The treatment is for 2-3 months.

Recipe 6 - *Allium sativum*: 1 teaspoonful of garlic juice
- *Petroselinum sativum*: 1 teaspoonful of essential oil
The 2 solutions are mixed and drunk in the morning on an empty stomach, and in the evening before going to the bed.
The treatment is for 2-3 months.

Recipe 7 - *Baillonella toxisperma*: 2 handfuls of leaves
- *Vernonia thomsoniana*: 500 g of stem bark
The 2 solutions are mixed and consumed in the daily meals for 2-3 months.

Recipe 8 - *Citrus aurantiifolia*: juice of a fruit
- *Cucurbita pepo*: 1 teaspoonful of seed oil
One spoonful of ground seeds is regularly added to the meals, every day during 3 weeks per month and for 3 months.

Recipe 9 - *Albizia zygia*: 500 gm of stem bark
- *Baillonella toxisperma*: 500 gm of stem bark
- *Vernonia guineensis*: 1 handful of tuber
The plant parts are minced and macerated in 2 L of water for 5 days. Then the rock salt is added to the solution boiled during 15 min. The cooled solution is drunk: 1 glassful a day for 1 month. *Vernonia guineensis* dried tuber are ground and the powder used as tea : 1 teaspoonful in a cupful of hot water every morning and every evening for 1 month.

Recipe 11 - *Aloes barteri*: 1 leaf
- *Cucurbita pepo*: 1 teaspoonful of seed oil
The plant parts are minced and macerated in 2 L of water for 5 days. Then the rock salt is added to the solution boiled during 15 min. The cooled solution is drunk: 1 glassful a day for 1 month. *Vernonia guineensis* dried tuber are ground and the powder used as tea : 1 teaspoonful in a cupful of hot water every morning and every evening for 1 month.

Recipe 12 - *Albizia zygia*: 500 gm of stem bark
- *Baillonella toxisperma*: 500 gm of stem bark
- *Costus afer*: 1 l of stem juice
The plant parts are minced and macerated in 2 L of Odontol in a bocal and the mixture macerated for 2 to 3 weeks. The alcoholature is drunk : 10 mL in an half a glassful of water 3 times a day for 2 months.

Recipe 10 - *Citrus aurantiifolia*: 5 fruits minced
- *Vernonia guineensis*: 1 handful of tuber
- Rock salt : 1 teaspoonful

Recipe 11 - *Aloes barteri*: 1 leaf
- *Cucurbita pepo*: 1 teaspoonful of seed oil

Recipe 12 - *Albizia zygia*: 500 gm of stem bark
- *Baillonella toxisperma*: 500 gm of stem bark
- *Costus afer*: 1 l of stem juice

(Contd.)
### Table 3—Plants used to treat prostatic diseases: Classification by 3 types of prostatic diseases treated (a), by number of plants used (b) and the 33 phytotherapeutic preparations (c). (Contd.)

<table>
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<th>Mode of uses (c)</th>
</tr>
</thead>
</table>
| Recipe 13          | *Citrus aurantiifolia*: juice of 2 fruits  
                      *Vernonia thomsoniana*: 500 gm of stem bark  
                      *Zingiber officinale*: 250 gm of rhizomes  
                      *honey*: 1 glassful | Steam bark and rhizomes are pounded and turned in 1 glassful of water. The mixture is squeezed in a clean stuff. The solution added to lemon juice and honey is drunk: 125 ml per day for 2-3 months. |
| Recipe 14          | *Carica papaya*: 1 dried leaf and 30 seeds  
                      *Costus afer*: 7 stem of 1 m long  
                      *Eucalyptus saligna*: 500 g of leaves  
                      *Vernonia guineensis*: 1000 g of stem bark  
                      *Vernonia afer* and *Vernonia guineensis* and the other ingredients are boiled in 22L of water during 3 h and the solution concentrated to 12L. The cool decoction is drunk: 1 glassful three times a day for 2 months. |
| Recipe 15          | *Baillonella toxisperma*: 1 handful of leaves  
                      *Musanga cecropioides*: 1 handful of leaves  
                      *Vernonia guineensis*: 500 g of stem bark  
                      *Vernonia thomsoniana*: 250 g of leaves  
                      The pounded ingredients are boiled in 3.5L of water for 30 min and the mixture infused for 24 h and drunk: 1 glassful three times a day for 1 month. |

**Recipes treating Cancer of prostate**

| Recipe 16          | *Arachis hypogaea*: seeds | -the raw oil from the seeds is recommended: 1 spoonful 2 times a day per day for 2-3 months.  
                      -Regularly eat the raw groundnuts: 3 à 4 glassfuls per week. |
| Recipe 17          | *Beta vulgaris*: tuber | -The tuber of *Beta Vulgaris*, cooked for 1 h is clean and crushed in juice drunk: 300-500 mL per day for 2-3 months.  
                      -250 g of Beta vulgaris are grated and eaten raw. |
| Recipe 18          | *Cococynthis citrulus*: fruit | the fruit of *Colocynthis citrulus* and its seeds are regularly eaten. The Recipe is more preventive. |
| Recipe 19          | *Dacryodes edulis*: fruits | -Extract and consume the plum oil: 1 spoonful 2 times a day for 2-3 months.  
                      -Eat regularly *Dacryodes edulis* fruits. |
| Recipe 20          | *Glycine soja*: seeds | Regularly consume soya beans in various forms: soya beans pap, yoghurt of soya beans, meal of soya beans, soup of soya beans, milk of soya beans and roast soya beans. The curative care needs at least 2 meals of soya bean per day for 3 months. |
| Recipe 21          | *Lagenariasiceraria*: seeds  
                      *1 handful of leaves and handful of roots*  
                      *Odontol* | -Extract and consume the calabash seeds oil: 1 spoonful 2 times a day for 2-3 months.  
                      -1 glassful of leaves and roots juice is mixed with 1 glassful of Odontol and the mixture drunk: 50 mL in half a glassful of water 3 times a day for 2-3 months. |
| Recipe 22          | *Persea americana*: fruits | -Extract and consume the pear oil: 1 spoonful 2 times a day for 2-3 months.  
                      -Regularly eat *Persea americana* fruits, simple or as salad. |
| Recipe 23          | *Punica granatum*: 4 fruits | -Fruits are squeezed in 2 glassfuls of water, the mixture sieved and the solution drunk: 1 glassful 2 times a day for 3 months. |
| Recipe 24          | *Solanum lycopersicum*: fruits | -The ripe fruits are squeezed in juice, drunk: 1 glassful per day for 2-3 months. |
| Recipe 25          | *Allium sativum*: 1 handful of cleaned garlics  
                      *Balcholzia coriaceae*: 2 almonds (or seed)  
                      *Local rum or Odontol or Hawai* | -The pounded ingredients are macerated in 2L of Odontol during 2 weeks. The alcoholature is drunk: 60 mL in half a glassful of water 3 times a day for 2-3 months. |
| Recipe 26          | *Cucurbita maxima*: seeds  
                      *Cucumis melo*: seeds | - Extract and consume the pumpkin or courgette seeds oil: 1 spoonful 2 times a day for 2-3 months.  
                      - Regularly eat, after cooking, pumpkin or courgette fruits. |
One diagnoses 40,000 new cases every year of prostatic cancer in France (543,000 in the world) and it is responsible for 10,000 deaths per year (200,000 in the world). It represents to the second rank of cancers in Cameroon with a percentage of 22.09%.

The benign hypertrophy of prostate develops itself at 10% of the men from 30 yrs, then key 50% among them from 50 yrs and reaches the totality of the men of 80 yrs and more practically. The operation of the HBP in France is the second most frequent operation after the cataract. The prostatic gland itself carries factors that bring about its dysfunctions.

- The PSA rate increases spontaneously with age and don’t indicate any particular illness. Its rate in blood is an essential parameter for the tracking and the surveillance of the prostatic illnesses.

- The prostate increases in size with age without creating some problems to urinate. It starts enlarging after 50 yrs: the cells increase and form a benign tumor called adenoma (HBP) or shrewd tumor called adenocarcinoma (AKP). The masculine hormone (androgens) role is indisputable since the HBP does not exist in men castrated before the age of the puberty and it can regress after castration.

- One finds inside the cells of the HBP of the high concentrations of dihydrotestosterone (DHT) coming from the transformation of the testosterone under the influence of an enzyme: the 5 alpha-reductase that would encourage the HBP.

- The growth factors bound to the androgenic hormones are secreted by some cells of the prostate and act notably on the multiplication, differentiation and the survival of the cells, but itself unsettled in man from a certain age.

The prostatitis is an infection of the prostate caused by urinary germs (bacterial prostatitis) by *Staphylococci* usually, *Escherichia coli*, *Gonococi*, *Enterobacter* and *Pseudomonas*. The treatment of
declared prostatitis infections made either by antibiotics, or by antiviral. The regular ingestion of Allium cepa juice is bacteriostatic, and the Allium sativum active principle, allicine, is active in vitro in 1/100000 against different bacteria positive and negative Gram (Staphylococci, Streptococci and intestinal Bacteria) by its bacteriostatic properties. The roots and leaves of Carica papaya are prescribed in the chronic gonococci with urethral shrinkage and painful micturitions. The seeds have an activity against Eschericia coli and Staphylococcus aureus.

A particular attention must be paid vis-à-vis the prostatic illnesses because of their increasing prevalence due in principle to the new life styles; the matrimonial regime and the food habits.

In the palm oil, the ergosterol (or provitamine A) and the estrogens (oestrone or folliculine) are its determining elements to make regress the volume of the prostate. The sterols are present in the oil of the pulp of Persea americana.

The meal or soup of Arachis hypogaea yields an oestrogen factor soluble in oil. Among some female hormones, oestrogens have an extraordinary activity on the cancer of the prostate. The results of the estrogens therapy are really stupendous. They actually make the metastases regress considerably.

Cucurbita pepo, C. maxima and Lagenaria siceraria (like all other Cucurbitaceae) are boiled and eaten as foods. They are characterized by the presence of the bitter principles of cucurbitacines, at the experimental level, these cucurbitacines reveal some anti-tumorous properties on the cancerous tumors. The cucurbitacines, D, E and I of Cucurbita pepo, Lagenaria siceraria provoke a curbed inhibition of the sarcoma 180, the black sarcoma and the carcinomas of the ascites of Erlich, the sarcoma 180 being the most sensitive.

The seed of Cucurbita spp. form the choice dishes of the chiefs, notables, twins and also of the workshop, being the most sensitive carcinomas of the ascites of Erlich, the sarcoma 180, the black sarcoma and the carcinomas of the ascites of Erlich, the sarcoma 180 being the most sensitive.

The lycopene, pigment of the mature tomato, is antioxidant. It acts by decreasing the PSA and by making regress the tumors. Other carotenoids as zeanthine and luteine of the oil of pulp of Persea americana are very antioxidant. They inhibit the apparition of the cells of the cancer of the prostate. It contains folic acid (Vit B6) that acts against the development of some types of cancers.

Traditional significance of study to the contributors

The sex is not a main risk factor, the sexual hospitality being the rule of conviviality at the Ewondo's. The food made of red oil of palm oil in the daily meals (Kwem without salt made of cassava leaves, sanga made of fresh maize), is rich in sterol: ergosterol (or provitamine A) and in oestrogen (oestrogen or folliculine) (Keraho and Adam, 1974). The records species are also used as food for their fruits: Carica papaya, Citrus spp., Lycopersicum esculentus, Persea americana, Dacryodes edulis, Cucurbita spp: leaves: Brassica oleracea. Others are consumed as spices as Zingiber officinale, Allium spp. Thus they are commonly grown by Yaounde's people in their homestead plots. They are largely similar to the uses recorded in other Cameroonian localities like Foumban and Maroua, possibly indicating authenticity of their usefulness in prostatic diseases.

Some of the reported Recipes, liable to produce untoward side effects, should be made and used under the direction of the traditional healers who can control their level of toxicity. In particular: v the use of Persea gratissima or Citrus grandis juice, used by women to induce abortion, should not be administered to pregnant women. Some of the reported Recipes, liable to produce untoward side effects should be made and used under the direction of the traditional healers who can control their level of toxicity. In particular, Aloe barteri, commonly used for its oxytocic effect, in the Sangmelima region, should not be taken by pregnant women.

Some few plants are collected from the wild, specially the stem bark of Albizia zygia, Baillonella
toxisperma and Prunus africana. The continue depletion of the last species, not only poses a challenge for its conservation, but also represents a serious threat to the health status of Yaoundé population. The stem bark of Prunus africana was marketed 1.500CFA (3 US$) during study period, to manufacture the “Tadenan”. That wild resource is reported to be declining in population and spread very severely on the submontane floor of hills and Cameroonian montanes, on which it grows. Traditional healthcare should be integrated by the government in a manner that ensures effective conservation of the species used in ethnomedicines

Conclusion
Life is defined as the result of the interactions of organs contributing to the development and the conservation of the individual. The prostate is located at the crossroads of the two processes: development and procreation; activity of the soma and those of the germ cells. Its illnesses ruin the physical health while blocking the poisonous substance evacuation; ruin the reproductive health while preventing the transfer of the semen by the sexual impotence or the absence of ejaculation, or the development of the semen by castration. They appear like a male human calamity. The risk factors are the information needed by people above 40 yrs of age, and their wives also. Traditional medicine in the study area is adaptive because it is severely on the submontane floor of hills and Cameroonian montanes, on which it grows. Traditional healthcare should be integrated by the government in a manner that ensures effective conservation of the species used in ethnomedicines

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