



# Medicinal Plant Use in Reproductive Health Disorders

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## Abstract

Information gathered on the behavior of outpatients with regards to treating reproductive health disorders is reported. The information was gathered at the Reproductive Health Unit, University Training Hospital / 'Institut Hygiene Sociale', Antananarivo, Madagascar during the six-month period of May - October 1999.

Gonorrhoea (42.51%) and genital ulcer (13.18%) of cases were the dominant reproductive health disorders presented by patients. 50.83% of the 358 patients suffering from gonorrhoea and 39.63% of the 111 patients with genital ulcer used medicinal plants to treat their disorders.

The results obtained from examining these patients at the hospital seem to reveal a justification of their use of medicinal plants for these reproductive health problems. All patients who took medicinal plants in both cases of gonorrhoea and genital ulcer showed none of the reported disorders.

The need to identify the plants used by these patients in order to explore the wider and safe use for these reproductive health disorders is called for. Similarly (and probably more importantly) is the need to look for those prescribing these plants (the traditional medical practitioners) so as to find out ways to enable them to work in partnership with the modern medical practitioner in the area of reproductive health.

## Introduction

Madagascar, the fourth largest island in the world, with its rich biological diversity and high species endemism (example, about 85% of plant species and over 90% of amphibians are endemic) still parades as one of the world's poorest countries.

The official medical system in Madagascar is the modern medical system with its use of pharmaceutical products. The State, through the Ministry of Health, is the main provider of health services although some religious groups and other private individuals and organizations are also involved in health service provision. Economic hardships, however, have meant that most Malagasies are not able to afford the costs of health services, especially for modern medicines (pharmaceutical products) and treatments.

Traditional medicine, especially its use of biological diversity is tolerated and widespread in Madagascar. Malagasies will sometimes use medicinal plants for their health care needs before going to seek or while seeking medical advice from personnel of the official medical system. It is this behavior and the desire to find out if the use of biodiversity (especially medicinal plants) was justified, in terms of meeting the health care needs of the patient that led to this study, the subject of this presentation.

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## The Study Site

The study - medicinal plants use in reproductive health disorders - was carried out at the Reproductive Health Unit, University Training Hospital / 'Institut Hygiene Sociale', (UTH/IHS) Antananarivo, Madagascar. Antananarivo, is the capital of Madagascar with a population of around 1.2 million. UTH/IHS is the largest outpatient hospital in Madagascar with five main departments and 24 medical doctors. The five departments in this hospital are: Medical, Surgical, Aptitude, Medico-sanitary and Finance. Each department has various service units operating under it as follows:

- Medical Department (19 Medical Doctors)
  - Dermatology
  - Allergology
  - Anti-Tuberculosis
  - General Medicine
  - Cardiology
  - Psychiatry
  - Reproductive Health
- Aptitude Department (2 Medical Doctors)
  - Permits
  - Naturalization
  - International Vaccination
- Finance Department
  - Human resources
  - Sanitation
  - Accounting
- Surgical Department (2 Medical Doctors)
  - ORL-O
  - Small (Minor) Surgery
- Medico-sanitary Department (1 Medical Doctor)
  - Pharmacy
  - Laboratory

The UTH/IHS operates under the Ministry of Health.

## Methods

Diseases were diagnosed by using the medical history of the patient as well as following the syndromic approach and/or laboratory test. Patients were interviewed during consultation with regards to their behavior when faced with the reproductive disorder. They were asked if they previously had, or currently were having, any type of treatment apart from the hospital. If treatments had been received, then they were asked which type of treatment and to indicate the individual who had carried or was carrying out the prescription for the treatment.

## Results

During the six-month period of the study - May to October 1999 - UTH/IHS had 25,744 general consultations. Of these general consultations, 1,364 were uro-genital disor-

ders out of which 842 were cases presented to the Reproductive Health Unit.

The 842 patients who presented reproductive health disorder cases at the Reproductive Health Unit were made up of 645 females and 197 males. Gonorrhoea (358 cases) and Genital ulcer (111 cases) were the dominant reproductive health disorders presented during the study period. Other reproductive health disorders presented included - infertility, pelvic inflammatory diseases and non-gonorrhoeal genital discharges.

50.83% of the patients suffering from gonorrhoea and 39.68% of those suffering from genital ulcer used medicinal plant(s) to treat their disorders. The decoction of eight plants prepared in a combination of two, three or four were used to treat gonorrhoea while the paste of six other plants as well as a decoction of four of these same plants were used for genital ulcer. To treat gonorrhoea the decoction was administered orally while for genital ulcer the paste was applied topically, in addition to washing the genital area with a decoction. Sometimes there was an oral administration of a decoction associated with the treatment indicated above for genital ulcer.

72.73% of patients suffering from gonorrhoea who used plants had their treatment prescribed by a traditional medical practitioner while the remaining 27.27% had auto medication. For patients having genital ulcer 32.97% of them went to see the traditional medical practitioner while 67.03% had auto medication. Those who carried out auto medication in both cases had information from relatives, friends and/or neighbors.

Symptoms for gonorrhoea disappeared between the second and the third days of taking the plant decoction while genital ulcer symptoms disappeared gradually from the second day of medicinal plant(s) treatment. The ulcer disappeared completely by the sixth day of treatment. All patients who had their gonorrhoea symptoms treated with medicinal plant(s) showed no symptoms upon examination at the hospital

Laboratory tests for syphilis for patients who had genital ulcer showed negative for 84.10% of patients who had treated their genital ulcer with medicinal plants. The remaining 15.90% of these tested positive.

Note that no laboratory tests were carried out for diagnosing gonorrhoea. The policy of the Ministry of Health in Madagascar is to use the syndromic approach recommended by the World Health Organization (WHO) for diagnosing sexually transmitted infections (STIs).

## Discussion

More than 30 bacterial, viral, and parasitic diseases have now been identified that can be transmitted by the sexual route (Gerbase et al, 1998). STIs infect the reproductive tract as their primary site, with transmission occurring during sexual intercourse or from mother to child during pregnancy and childbirth. Classifications have been made for the resulting infections as follows:

1. STI with genital ulceration eg. syphilis, genital herpes and chancere
2. STI without genital ulceration eg. gonorrhea, chlamydia and trichomonas.

An STI may also be classified according to whether it is curable or non-curable. The curable STIs include gonorrhea, syphilis, chlamydia, trichomonas and chancere. These are the most common STIs in the world. The non-curable STDs are those caused by viruses such as HIV/AIDS and the Papilloma virus.

There are many physical manifestations of STIs in humans. These include genital ulceration and/or irritation, discharges, pelvic inflammatory diseases, infertility and cervical cancer.

STIs occur worldwide, however the advent of HIV/AIDS has put an added urgency to prevent and/or treat STIs before they serve as entry points for HIV/AIDS. This is because data from a number of studies strongly suggest that both ulcerative and non-ulcerative STIs facilitate HIV transmission (Gerbase et. al, 1998).

In Madagascar, the National Program 'IST/SIDA' (STI/HIV/AIDS) initiated in 1988 is officially charged with finding ways to combating STIs. The main orientations of this program are in conformity with WHO's 'Ground Program for AIDS'.

Treatment of STIs at health care centers has always been carried out using various antibiotics. Economic hardships coupled with non-availability of medicines have made people resort to using traditional forms of treatment for STIs just as for other diseases. This traditional form usually involves using medicinal plant(s).

50.83% of the patients suffering from gonorrhea and 39.68% of those suffering from genital ulcer used medicinal plant(s) to treat their disorders in this study. With such a percentage in the capital, one would wonder what the situation would be like in the rural areas where access to official modern medical facilities is low (sometimes not available).

All the patients who had their gonorrhea symptoms treated with medicinal plant(s) showed no symptoms upon examination at the hospital. These patients were, however,

treated for possible infection by chlamydia. The decision to treat patients for possible chlamydia infection was taken as a result of the fact that patients complained of 'feeling something unusual' in their genital area even though the gonorrheal symptoms had disappeared. Similarly, as there's usually a gonorrhea-chlamydia co-infection in cases of gonorrhea infection treatment of gonorrhea at health centers tends to incorporate treatment for chlamydia as well.

The result for treating patients with antibiotics only for gonorrhea and possible chlamydia co-infection was as satisfactory as that for those patients who had treated their gonorrhea with medicinal plants and used antibiotics for possible chlamydia infection. The economics of it though was not the same. Patients who used medicinal plant(s) and antibiotics saved about US\$10 on their treatment.

The case for using medicinal plants for treating genital ulcer symptoms is less clear. 84.10% of those patients who had treated their genital ulcer with medicinal plants tested negative to the syphilis test while the remaining 15.90% tested positive. These 15.90% were treated with antibiotics for syphilis while no treatment was prescribed for the 84.10% who had used medicinal plants. The clinical ground and the presence of scar on the genital area during consultation make us suspect either chancroid or herpes infection in these 84.10% patients. However, one thing is sure: these patients (the 84.10%) had successfully treated whatever genital ulcer they had with medicinal plant(s). These patients (the 84.10%) saved between US\$3-US\$36 in health care costs as compared to their counterparts who used only modern medicines.

The important contribution of the traditional medical practitioner in health care provision cannot be ignored either. 72.73% of patients suffering from gonorrhea who used plants had their treatment prescribed by traditional medical practitioners while 32.97% of patients with genital ulcer visited the traditional medical practitioner. Clearly, traditional medical practitioners are having a large impact with accurate diagnoses and administration of effective treatments.

## Conclusion

The preliminary results obtained from this study seem to justify the use of medicinal plants in dealing with these reproductive health disorders in terms of cost- effectiveness. All patients who took medicinal plants in both cases of gonorrhea and genital ulcer showed none of the reported disorders and saved on their health care costs.

The need to identify the medicinal plants used by these patients in order to explore the wider and safe use for these reproductive health disorders is called for. Similarly (and probably more importantly) is the need to look

for those prescribing these plants (the traditional medical practitioners) so as to find out ways to enable them work in partnership with the modern medical practitioner in the area of reproductive health.

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### **Literature Cited**

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