



Editorial

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NEGLECTED DISEASES IN AFRICA: A CHALLENGE FOR MEDICINAL PLANTS RESEARCH

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This issue of the African Journal of Traditional, Complementary and Alternative Medicines is devoted to the so-called “Neglected” diseases afflicting the human race especially those of the developing world. This is part of the subtle efforts being made by African Scientists and others to stop human pain caused by these maladies. Neglected diseases are defined by the World Health Organization (WHO) as “Infectious diseases that have burdened humanity for centuries. In their long histories, they have acquired notoriety as disabling and deforming diseases, often associated with great stigma. In the past, the magnitude of their impact on health and productivity led to considerable knowledge about their biology and epidemiology, and effective control tools were developed for most. In addition, as living conditions improved, opportunities for transmission were reduced. As a result, these diseases are rarely seen in populations that enjoy good access to health services and a reasonable standard of living”.

The main factors for the development of these maladies are poverty, subtropical conditions, and inadequate health systems. Sub-Saharan Africa has all these factors; according to the WHO data, most of the countries have the lowest GPD income of the world, many other are in civil wars or under unsatisfactory government conditions. These include diseases such as lymphatic filariasis (elephantiasis), schistosomiasis, intestinal parasites, leprosy, sleeping sickness and others, are common among the population of Africa. Neglected diseases typically affect children, women and mainly poor people often causing varying degrees of disability. This reduces their ability to work and has severe economical and developmental consequences. Although effective and cheap tools are available to control some of these diseases, the results are unsatisfactory. Because they do not kill but often lose health priority, the lack of action has a high price, ranging from diminished school performance, retarded growth, absenteeism from school and work as well as a loss of productivity.

Although medically diverse, neglected diseases share features that allow them to persist in conditions of poverty, where they cluster and frequently overlap. Unsafe water and poor sanitation sustain transmission cycles and favour the proliferation of vectors. Lack of access to health services, low levels of literacy, inadequate nutrition and poor

personal hygiene all help to increase vulnerability to infection and work against prevention. In poor countries, over 350 million people are at risk of these diseases.

Neglected diseases have traditionally suffered from a lack of incentives to develop drugs and vaccines for markets that cannot pay. Research for new products is not commercially viable. The oversimplification of the causes can be dangerous because the responsibility is shared between several participants, local governments, big pharmaceuticals, international organizations among others. Instead of looking for culprits, we need to act fast.

As scientists, it is doubtful if we have the tools to solve the problem of poverty in short-term, prevent vectors' proliferation, solve the urbanization problem, or change governments. The lack of commercial drugs in treating these diseases should not make us lose hope also. First, there is abundant medicinal plants and healers in every African village. Secondly, active components have been isolated from plants like quinine alkaloids used to treat malaria, or artemisin from *Artemisia annua* to treat malaria. Thus, we can utilise the nature's pharmacy to our advantage in Africa and the developing world. Neglected diseases are often caused by bacteria, protozoa, nematodes, fungi among other organisms, and natural products often have activity against these organisms. Virtually all the papers in this issue highlight the quest for agents for the control of these organisms, and some non-infectious diseases. It's important to notice as an example that modern drugs against filariasis kill microfilaria but only a variable proportion of adult worms, and often in advanced stages a surgical procedure is the best option. This means drugs alone cannot solve the problem. Therefore, alternative therapies must be developed for this purpose.

African countries must develop plants with potential for the control of these diseases, as a first step instead of developing a new drug or a phytomedicine. They must authenticate the actions of empirical preparations, in a scientific way. If a plant or a plant extract is acting against a specific disease, the active principle or principles must be isolated and tested, but the desired action must be present in the whole traditional preparation. Every community in Africa and the developing world has Healers. Therefore, the empirical preparations by healers must be tested and the best ones recommended for further use either with slight modifications in the preparation or part of the recipe may be used depending on the efficacy and safety. After good results are obtained with a specific plant or phytomedicine, scientists are encouraged to contact organizations like; Drugs for Neglected Disease Initiative (DNDi), where they can see how to develop a drug.

African traditional medicine certainly can largely contribute to stop the human pain caused by neglected diseases.

References

1. Daumerie, D. (2004). Intensifying control of neglected diseases, International Workshop report Berlin, 10-12 December 2003. WHO 51p.
2. Pécoul, B. (2004). New Drugs for Neglected Diseases: From Pipeline to Patients. *PLoS Med* **1**(1): e6
3. World Health Organization, (2005). web page; <http://www.who.org>. (accessed: Jun, 2005).