Artemisia: From therapy to prophylaxis

Since 9 years, the association IFBV-BELHERB from Luxembourg has established a working relationship with African and South American universities, in close cooperation with other European research institutions. Several of these partners have run clinical trials with Artemisia annua tea. In all these trials a therapeutical effect of 95% or higher was confirmed by the use over 7 days of whole leaf infusion, capsules or tablets. One of the surprising effects noticed in these trials was that the artemisinin content had very little impact on the results. This lead us to make an analysis as complete as possible of all the constituents, organic and inorganic, in a large series of A. annua samples from different origins. A. annua from Luxembourg which had shown very promising antimalarial results, excellent bactericidal properties and a strong anti-inflammatory effect contained very little artemisinin but higher concentrations of certain essential oils. The effect of water soluble polysaccharides, amino acids, phytosterols and saponins has been neglected in the past because most of the A. annua extracts had been obtained with organic solvents. Several papers have shown that A. annua ingested as powdered leaves or in conjunction with fatty food significantly increases the artemisinin concentration in the blood. It is well documented in the literature that A. afra or sieberi which contain little or no artemisinin are extensively used as antimalarials. They contain at least 5 molecules of the same antimalarial efficacy as artemisinin. Recent double blind randomized clinical trials with 1000 patients in RD Congo show that Artemisia afra is equivalent to A. annua and has a higher efficiency than ACTs. More recent research from the Al Quds University has shown that aqueous infusions of several Artemisia species strongly inhibit beta-hematin, like chloroquine did. But the most important finding in several of the clinical trials, especially in Kenya and Uganda, was that people who drink one or two cups of A. annua tea per week become immune against malaria. Similar strong prophylactic results have been obtained with ARTAVOL, a mixture of herbs developed by the Ministry of Health in Uganda, mixture containing Artemisia without artemisinin. Resistance in this case is not related to the killing power of one single molecule like artemisinin but to the polytherapy of the whole plant which not only eliminates the parasites but boosts the immune system, avoiding thus infection, re-infection or recrudescence.

Biography

Pierre Lutgen has studied at the University of Louvain in Belgium and obtained Diploma in Chemistry, Social Sciences and Philosophy. He has worked for 25 years for the DuPont CY in Research and 8 years in Steel Industry, mainly in the environmental field. Since his retirement he has worked as a Consultant for Health and Environment, Invited Professor at the University in Medellin and for the European Communities in several countries. Over the last ten year he has organized the association of IFBV-BELHERB studying and fighting tropical diseases with 30 academic and medical partners in Africa, South America and Europe.

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