Face To Face

An Interview With DR. CONRADO S. DAYRIT
Head Of A Group Conducting Experimental Trials On CNO As Possible Cure for HIV/AIDS

Dr. Conrado S. Dayrit is Professor Emeritus of Pharmacology, at the University of the Philippines College of Medicine. He was Immediate Past President, National Academy of Science and Technology (1992-1999), and Federation of Asian Scientific Academics And Societies (1995-1998). He was chosen to head the group to undertake the experiments on using coconut oil as a possible cure for HIV/AIDS. Dr. Dayrit received his basic degree in medicine at the University of the Philippines and his post graduate training in the USA, specializing in basic and clinical pharmacology, cardiology and internal medicine.

C.I.: What made you interested in doing research on the health effects of coconut oil?

I was a young cardiologist in 1952 when we organized our Philippine Heart Association. The high mortality rate from coronary heart disease in the US and Europe was then attributed solely to high fat intake particularly of saturated fats which mostly are animal fats. Of the vegetable oils, coconut oil was singled out to raise cholesterol and produce arteriosclerosis because of the results of feeding studies in animals. In spite of this finding in animals, we in the Philippines did not see that many coronary heart patients. We saw much more rheumatic and hypertension cases than coronaries. We started to question these findings in animals. And since coconut oil is an important product of our country, it became all the more necessary to study the health effects of the oil we use in our daily diet.

C.I.: Is coronary heart disease directly related to coconut oil consumption?

This is the $64 question before us and the answer is negative. No, the people who consume coconut oil the most have low coronary heart disease incidence and mortality. This is not only true for Filipinos but for other South East Asians as well. Polynesians too are high consumers of coconut oil in their diets and Puka-Pukans, Tokelauans, as Ian Prior showed in his 1974 and 1981 reports, had low serum cholesterol as well as low coronary heart disease. So, we can definitely say that coconut oil consumption does not appear to bear any relation to coronary heart disease incidence or mortality. But perhaps we should now ask why animal feeding experiments have given such unfavorable results. There must be something different between man and beast. But also perhaps these animal studies had completely excluded the "essential fatty acids" (polyunsaturates) which are what we may call "essential vitamins for health. The amount necessary is small - only about 3% of total caloric intake. But without this, as without any vitamin, deficiency disease will occur.

C.I.: What is your advice to coronary heart disease sufferers with regard to coconut oil consumption?

The safest advice for patients who already have coronary heart is for them to reduce total fat intake to 30% of total dietary intake or even lower (20%) especially if their cholesterol and LDL are high and their HDL low. And the type of fat consumed should
be evenly distributed among the different types of fat - long chain saturated fats (animal fats), medium chain saturated fats (coconut oil), polyunsaturated fats (corn oil, safflower or soybean oil) or monounsaturated fats (olive oil). It is not advisable to take only polyunsaturates (corn oil, soybean oil or safflower oil) while avoiding saturated fats altogether. Polyunsaturated fats do lower serum cholesterol but they also reduce the HDL so that the ratio of cholesterol to HDL rises, which is not good. Patients with heart disease can certainly take coconut oil along with other fats since, I must emphasize, there is no fat or oil that is so poisonous that even a little of it will kill. I hear some dietary advisers exclaiming, "Coconut oil is a No-No!". This remark is based on plain ignorance of the true facts.

C.I.: What are the other important facts which consumers all over the world should know about the health aspects of coconut oil?

The nature and metabolism of the fatty acids in coconut oil are quite unique. Although the coconut fatty acids are saturated, they are mostly of medium length - from 6 to 12 carbon atoms long. This is in contradiction to the long chain fatty acids of animal fats which are mostly 16 and 18 carbons long. Hence, the major components of coconut oil comprising 60-65% are the medium chain triglycerides or MCTs. MCTs have completely different behavior in the body from the LCTs. They are very rapidly and easily absorbed in the gastrointestinal and are carried directly to the liver where they are rapidly metabolized into energy. Their metabolism is as rapid as that of sugar. So MCTs can be taken like sugar for energy purposes. MCTs have been declared GRAS (Generally Regarded As Safe) by the US FDA and given as food for premature infants, surgical and convalescent patients. They are not involved in cholesterol production nor are they stored in fat depots. Hence, MCTs (i.e. coconut oil itself) contribute minimally to obesity.

The newest finding about coconut oil is its antipathogenic activity. Dr. Jon Kabara, in the early 70s demonstrated that of all the fatty acids he tested - and he tested practically all the fatty acids then available, lauric acid (C 12) from coconut oil possessed the highest potency to kill or inhibit gram positive bacteria, lipid coated viruses and even fungi and parasites. C 12 was even more effective in its monoglyceride form or monolaurin. Next to C 12, came C 10 and C 8 - all of them MCFAs of coconut oil. Our ancestors, of course, knew that coconut oil was good for controlling hair lice and various skin ailments. But Dr. Kabara was the first to demonstrate this in the laboratory. Unfortunately, his findings have not been popularized nor utilized adequately. But we of the Philippine Coconut Research and Foundation (PCRDF) and the Philippine Coconut Authority (PCA) are, after all these years, looking to the clinical application of these findings - in bacterial infections, like tuberculosis and peptic ulcer, in viral infections like HIV-AIDS and hepatitis, in fungal and skin infections.

C.I.: As you are currently involved in experimental trials on the use of monolaurin from coconut oil in treating HIV/AIDS patients in the Philippines, can you give us the highlights of this unique and unprecedented experiment?

Dr. Mary Enig had previously cited 2 or 3 HIV-AIDS patients who during their vacation in some tropical isles, ate coconut in large amounts and subsequently found that their viral counts had dropped significantly. This, and Dr. Kabara’s laboratory findings convinced us to try the effects of the monolaurin and coconut oil on 15 of the HIV-AIDS patients that regularly report to our infectious disease hospital, the San Lazaro Hospital. The results of that trial are now to be published and simultaneously reported in the COCOTECH Conference we are holding in Chennai. In brief, the findings show that 50 cc of coconut oil given daily in the diet or as low as 7. grams of monolaurin daily, can, over a period of 6 months lower the viral count produced both by monolaurin as well as coconut oil show that when coconut oil is ingested (whose fatty acids are in triglyceride form) it can be converted to significant levels of the monoglycerides of the lauric acid.
(C12), the capric acid (C10) and the caprilic acid (C8), all of which have antiviral activity. The mechanism of this activity is probably a destabilization or weakening of the lipid coat of the virus resulting in its disruption. This study is quite preliminary. We need to treat more patients over longer periods to determine the effects of the monoglycerides given alone and in combination with standard anti-retroviral drugs. These studies are now in the offing.

At present, the cost of a one-year course of anti-retroviral therapy is $10,000 or half a million pesos per patient. The treatment is not curative and has to be continued indefinitely, perhaps with less number of drugs at reduced dosage. But this is much too much for most patients, particularly those from poor countries. On the other hand, monolaurin and certainly coconut oil are cheap. What a boon it will be if we can replace the expensive drugs with this very inexpensive remedy that we grow on our coconut trees!

Unfortunately, because of the high cost of anti-retrovirals, even the research to determine how monolaurin can be used in HIV/AIDS therapy will be in the hundreds of millions of our peso. Our foundation, PCRDF, even our government, cannot afford this amount. Perhaps, other less expensive study designs will have to be tried other than the classic randomized controlled clinical trial considered as the ultimate proof by evidence-based medicine.

It is good that this research is, as it has been from the start, a joint effort of PCRDF, the Department of Health and United Laboratories. United Laboratories is the biggest pharmaceutical manufacturer in the Philippines and Southeast Asia and has good research facilities. We are also hoping that we can get some funding from the P100 billion Coconut Levy Fund.

CI: Thank you DR. Dayrit.

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