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## A clinical case of serious “natural medicine” incompetence

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Complementary and alternative medicines (CAMs) contain a huge variety of diagnostic and therapeutic practices whose underlying theory or explanatory mechanisms do not always conform to current medical thinking. There are two mainstreams of thinking in CAMs: one following the basic patterns of current standard clinical practice and not conflicting with it, properly defined as “integrative medicine”; and one, wherein diagnosis and therapy are based on systems and beliefs alternative not only to current medical practice but also current physiology, physics and chemistry, to be properly called “full alternative medicine” (FAM). Health caregivers often have the opinion that CAMs are substantially unuseful, but generally not harmful. Nevertheless, CAMs are growing in popularity among the public, and patients increasingly when unsatisfied, or worse, thinking to be unhelped by conventional treatments, the patients go in search of CAM therapies, often consulting non-physicians or non-expert providers. Estimates of CAM use in Western countries range from about

one-third to half of the general population, and in Italy, the proportion has almost doubled during the last decade [1].

A 66-year-old woman visited the outpatient-based service of Natural Medicine of our Center asking for a complementary medicine treatment after a strange consult with another physician.

She was suffering with hypertension, carotid and aortic atheromas, bronchial asthma, mood disturbances, hypokalemia, and paroxysmal atrial fibrillation after an episode of myocarditis. She had been recently admitted to a university hospital for a new episode of hypokalemia and atrial fibrillation. In hospital hypoaldosteronism was not found, and the patient was diagnosed with idiopathic hypokalemia. She was discharged home with the recommendation to follow a hyposodium diet and one that was potassium-rich; and prescribed: flecainide, coumadin, spironolactone, simvastatin, anxiolytics and gastric protectors. She was recommended to have follow-up routine measurements of potassium, INR, CPK and transaminases.

After the hospital discharge, she consulted a physician expert in “natural therapy” who prescribed a huge quantity of herbal remedies and dietetic advice: a diet rich in vegetables, fruits and cereals both for lunch and dinner. The physician also recommended special vegetable soups, rice creams, currant and grapefruit juices, but also daily enemas and two daily water decoctions containing mauve, nettle, celandine, boldus, horsetail before lunch as well as cascara, liquorice, fennel, seine, gentian and rhubarb before dinner, one fruit and vegetable syrup, and one containing aloe juice.

The patient was very perplexed, because of the huge number of dietetic substances, enemas, syrups, added to the pharmacological therapy prescribed in hospital, and decided to undergo a consultation at our public service, because she was rightly afraid of possible pharmacological interferences [2, 3].

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Vegetables and fruits	lower coumadin activity
Grapefruit juice	higher pharmacological activity of drugs, especially simvastatin
Enemas	electrolytic derangements
Liquorice	hypokalemias, hypertension, reduced activity of spironolactone
Seine, cascara, rhubarb, aloe	hypokalemia
Celandine	potential hepatotoxicity

We advised the patient not to use any “natural treatment,” but only synthetic drugs prescribed at the time of hospital discharge.

We decide as regional referring center for phytotherapy to meet the colleague who prescribed the original and possibly dangerous preparation, and to have a critical discussion about toxicological and clinical issues of such prescriptions with her. She denied having any special courses or any particular experience in the field, but had one day simply decided to open a private office of natural medicine, after reading some books. This is legal in many Western countries because every physician can give advice about diet or prescribe integrators.

In a recent survey of Italian general practitioners in Tuscany (an Italian region of about 4 million inhabitants) [1], almost 200 family doctors were currently practicing CAM, more than one-third reported no specific certificated training completed or in progress [1]. This was the case for approximately 40% of GPs practicing acupuncture and homeopathy and 82% GPs practicing phytotherapy; although the absolute number of CAM practitioners without any specific training is small [1].

We think this case is just the tip of an iceberg; physicians generally do not give scientifically based advices about CAMs, often negative, sometimes enthusiastic, so patients, confused, look for information by themselves on

the net [4], searching for therapy, and trusting in non-expert health caregivers, or worse yet, by self-prescribing.

Physicians should get at least a basic knowledge of scientific evidence, clinical indications and toxicological issues of CAMs.

With this target in 2004, the Joint Italian Conference of the Deans of the Faculties of Medicine and of the Presidents of Medical Degree Courses released an official statement regarding the relationship between CAMs and health area degree courses [5]. University School of Medicine of Florence, with specific reference to the undergraduate curriculum in Medicine and Surgery, has designed and conducted a methodological course on CAMs, with selective attention to CAM practices having a significant rate of scientific evidence, such as herbal medicine, manual medicine and acupuncture, and two Master degrees in Clinical Phytotherapy and in Traditional Chinese Medicine have been activated.

**Conflict of interest** None.

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