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## Danshen: A Popular Chinese Cardiac Herbal Drug

The recently published document in *JACC* on complementary and integrative medicine (1) left out one very important herbal drug, danshen. Because it is believed to have properties of improving microcirculation, increasing coronary blood flow, suppressing thromboxane formation, inhibiting platelet adhesion and aggregation, and protecting against myocardial ischemia (2), it is used either alone or in combination with other herbal ingredients for patients with coronary artery disease (CAD), in both China and other countries, including the U.S.

Conversely, danshen also interacts with warfarin by potentiating its anticoagulant action (3). Because both warfarin usage and CAD are so common in everyday cardiologic practice, the possibility of the interaction between warfarin and danshen should be kept in mind when excessive bleeding or unexpected prolongation of the prothrombin time or international normalized ratio is encountered in any patient on warfarin who has otherwise been under good anticoagulant control. Because danshen is a common compound of many cardiotoxic herbal preparations, patients oftentimes may not be aware that they are actually taking it. Furthermore, danshen can be administered not only as an oral tablet but also in a nebulizer (4). It has even been incorporated into some Chinese-brand cigarettes (5), so that many cigarette smokers may not even be aware of its presence.

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## Complementary Medicine Has No Place in Cardiovascular Medicine

The recent American College of Cardiology Foundation (ACCF) Complementary Medicine Expert Consensus Document—"Integrating Complementary Medicine Into Cardiovascular Medicine (1)"—presents problems for science-based physicians who demand evidence-based medicine. Complementary medicine implies that alternative medicine modalities are performed as an adjunct to Western medicine. There is, however, no place for unproven, unscientific (alternative) medicine in cardiovascular medicine. Alternative medicine practitioners attempt to skirt the unscientific nature of their unproven therapies by adding some therapies that have always been considered conventional—exercise, diets, physical therapy modalities, and relaxation prescriptions.

The Institute of Medicine (IOM) report (2) referred to in the ACCF Document argues that the true complementary and alternative medicine practices (chiropractic, acupuncture, naturopathy, homeopathy, and no doubt hundreds more) are rooted in forms of evidence and logic other than those used in biomedical sciences. I (3) and others have suggested that this constitutes the "free-ride" of alternative medicine.

The ACCF document points out the deficiencies and lack of evidence for most dietary supplements and herbs. I can think of little if any place for herbs and supplements in modern cardiovascular medicine. Today, we use digoxin, not the foxglove. Sampson (4), in his discussion of herbal remedies and basically all alternative remedies, suggests that they "are generally less effective or ineffective, and randomized clinical trials of these remedies measure mostly subjective symptoms. . . . Inconsistent outcome from studies of alternative treatments seem to be the norm."

The ACCF document alludes to the problems related to chelation therapy, but it fails to criticize the launching of still another expensive trial of that repeatedly disproved therapy. Sampson suggests that, as scientists, we will not go astray by supporting a medicine based on evidence that has passed through the sieve of plausibility and that is consistent with basic sciences, other applied sciences, and history—all molded by wisdom and common sense.

The most glaring deficiency of the ACCF report is in the lengthy section on acupuncture, which suggests that there is evidence of value and potential indications for this alternative therapy. A recent review by Atwood (5) claims that "investigations of acupuncture to date have not demonstrated effects on the natural history of any disease." I know of no proven value for acupuncture