Commentary on Viewpoint “Human experimentation: No accurate, quantitative data?”

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To the Editor: Although the statement “Unfortunately, as it is not possible to obtain accurate quantitative data from humans, we have to rely on results extrapolated from animal studies, mainly dogs and cats” (1) was made in the context of venoconstrictor contributions to cardiac filling, its unqualified nature encourages comment. As Rowell (2) properly points out, both quantitative and accurate data are regularly obtained from humans, often with methods also used in animals. Others, for example plethysmography, indicator dilution, and dye extraction methods, based on sound physical principals, have stood up well as both quantitative and accurate.

Careful extrapolation from animals to humans is valuable. Insights gained from dogs, cats, flies, or nematodes provide the substrate for the sort of extrapolation indicated by Hainsworth and Drinkhill (1). The implication that animal studies necessarily carry more mechanistic credibility than those in humans is, however, not true. Certainly much insight into control mechanisms involved in the cutaneous circulation has been gained from human studies. Species differences may cloud the issue or, when the basis is understood, may add considerable clarity.

By stimulating Rowell’s Viewpoint, Hainsworth and Drinkhill (1) caused broader appreciation to be brought to the rich history of quantitative studies in humans. What is termed not possible might be better termed as not yet achieved. Certainly, quantitative, accurate, and mechanistic studies in humans are an exciting challenge and central to translational research of the future.

REFERENCES