LETTERS TO THE EDITOR

Is the Hippocrates Paradox Really a Paradox?

In the Editorial Comment by Lavie and Milani (1) accompanying the report by Reeves and associates (2), the correspondents used as their title “Obesity and Cardiovascular Disease: The Hippocrates Paradox?”. Lavie and Milani began their comment by quoting a statement by Hippocrates, namely, “Sudden death is more common in those who are naturally fat than in the lean.” Clearly Hippocrates recognized the association between obesity and cardiovascular disease. According to the American Heritage Dictionary of the English Language, paradox is “a seemingly contradictory statement that may nonetheless be true” (3). Because Hippocrates recognized the association between obesity and sudden cardiac death, his quoted statement is therefore not a paradox.

The use by Lavie and Milani (1) of the word “paradox” is reminiscent of the description of “pulsus paradoxus” in cardiac tamponade. As Spodick stated so succinctly in his book (4), “Pulsus paradoxus, as Kussmaul described it, was a change in a pulse (pulsus), not a pressure. Indeed, he had no blood pressure cuff or catheter, and it was ‘paradoxic’ to him, since the radial pulse disappeared intermittently (during inspiration) while the heart continued to beat without interruption. Pulsus paradoxus is an exaggeration of the normal phenomenon of an inspiratory fall in systolic arterial pressure.”

Perhaps, Lavie and Milani had in mind the same phenomenon of an exaggeration when they coined the term “the Hippocrates paradox” because Hippocrates not only associated obesity with cardiovascular disease, but went further to associate obesity with sudden death due to cardiovascular disease. Hippocrates also condemned overeating: “Repletion, carried to extremes, is perilous” (Aphorisms 1), and he warned against exercise after eating: “Fat people who want to reduce should take their exercise on an empty stomach” (5). Furthermore, Hippocrates observed that obesity also predisposed to cerebrovascular disease and that the slender person is likely to outlive his heavier neighbor (6).

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REPLY

We appreciate Dr. Cheng’s comments, and we agree that Hippocrates recognized the association between obesity and cardiovascular disease and that his famous quotation is not a paradox. In the title of our editorial (1), we placed the question mark to emphasize that we were questioning this paradox. More importantly, however, we were trying to use Hippocrates’ quotation as a “catchy” introduction to the puzzling “obesity paradox,” meaning that, although obesity contributes to the development of several cardiovascular diseases (hypertension, heart failure, and coronary artery disease), in many situations as discussed in our editorial (1), paradoxically the prognosis of the obese patient with the disease has been better than that in the leaner patients with the same disease (2,3). We agree with Dr. Cheng’s comments on the accurate meaning of the word “paradox” and the errors frequently made using this term, and we appreciate his attention to detail. Likewise, we also enjoyed reading the additional words from Hippocrates relating to the perils of obesity.

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Definition of Paradox. A paradox is a statement that appears at first to be contradictory, but upon reflection then makes sense. This literary device is commonly used to engage a reader to discover an underlying logic in a seemingly self-contradictory statement or phrase. As a result, paradox allows readers to understand concepts in a different and even non-traditional way. For example, playwright George Bernard Shaw famously stated the paradox that “youth is wasted on the young.” As a result, the very group who would benefit from youth due to their perspective are the ones who, by definition, aren’t youthful. Common Examples of Paradox. There are many common examples of paradox in everyday conversation and writing. It is paradox, but an informal paradox, and it can be resolved, or at least addressed, by distinguishing, as Aristotle is wont to due, between different sense of the word “know.” For example, one might distinguish between reflective knowing (a knowledge about my knowledge) and non-reflective knowing (a knowing about determinate facts). It is important to distinguish between formal paradoxes and informal paradoxes. Informal paradoxes aren’t really very troubling, since informal reasoning is tolerant. It can just say, in effect, “that doesn’t make sense,” and move on. Or it can draw subtle distinctions on an ad hoc basis. The danger is not that paradoxes will shatter the logical fabric of the universe, but that sophists will abuse them. In philosophy and logic, the liar paradox encompasses paradoxical statements such as: “I am lying now.” “This statement is false.” These statements are paradoxical because there is no way to assign them consistent truth values. Consider that if “This statement is false” is true, then what it says is the case; but what it says is that it is false, hence it is false. On the other hand, if it is false, then what it says is not the case; thus, since it says that it is false, it must be true. Request PDF | On Feb 4, 2004, CJ Lavie and others published Is the hippocrates paradox really a paradox? Reply | Find, read and cite all the research you need on ResearchGate. “Sudden death is more common in those who are naturally fat than in the lean.” Hippocrates [1] Clearly, obesity is a problem that is reaching epidemic proportions in the U.S., with nearly 70% of adults being classified as overweight or obese compared with fewer than 25% 40 years ago [2]. Ross’ paradox allegedly arises when applying this inference to imperative logic: Clean your room. Therefore, clean your room or burn your house down. Intuitively, 2 doesn’t appear to follow from 1. However, it seems to me that this is just due to a syntactic ambiguity in the conclusion. That is, the conclusion could be interpreted in one of two ways: You should (clean your room or burn your house down). (You should clean your room) or (you should burn your house down). The OP suggests the paradox may be avoided by having a disjunction of two ought statements, OB p ∨ OB q, but that would not be derived from the OB-RM rule which is what is causing the problem. Besides, it would be odd for someone to make both of those commands rather than just the first one to clean one’s room.