Physician's Financial News

Investors in Drag? *By Shirley M. Mueller, MD* *Published on April 21, 2008*

In October 2007, Andrew Z. Tong filed a lawsuit against his boss, alleging that he was told to take female hormones in order to become less aggressive as a trader. He said he then obtained these hormones on the black market and took them, after which he suffered emotional and physical distress. This included losing interest in his wife, wearing women's clothes, and ultimately engaging in sex with men.

Although this spicy information titillates our brains similar to the way drinking a Worchester-flavored Bloody Mary stimulates our taste buds, it may not be accurate. Tong's boss, Ping Jiang and their employer, SAC Capital, the gutsy hedge fund in Greenwich, CT fervidly denied the charges. The case went to arbitration, which was required in Tong's contract when he was hired on with the firm.

Tong's boss, though, if he did suggest female hormones for Tong because he took too many risks, would have had science on his side. Not only did Professors Barber and Odean show that women make more money in the market than men because they trade less but now a new study links testosterone to increased trading. All this suggests estrogen might be a benefit.

John Coates and Joe Herbert of Cambridge University found that high testosterone levels in the morning were associated with enhanced profits during the day. This sounds like testosterone is good. However, further raised testosterone levels due to the profits lead to more risk taking. The problem is that other studies show that risk taking can go too far. When risk taking is fed by success, it accelerates. Then, judicious risk taking, which yields a profit, turns into poorly monitored risk taking. Overconfidence trumps judgment. Money is lost.

The paper by Coates and Herbert was published in April 2008 *Proceedings of the National Academy of Sciences*. The authors measured not only testosterone but also cortisol levels in the saliva of 17 male traders from an unidentified bank in the City of London. They found that cortisol, a hormone released during stress, told a story different from the testosterone. It was highest during implied volatility in the options market and also with variance in the trader's profits.

This suggests it may have been preparing the traders for the anxiety related to their risk taking. Although cortisol may be helpful during acute stress, over prolonged periods it can impair judgment and even cause bodily harm. This issue is not addressed in the Coates/Herbert research that was eight days in length, but would be an ideal subject for further exploration.

Commenting in the *Financial Times* of April 15, John Coates said: "Would a greater presence of women and older men in the markets help stabilize them? If risk preferences are determined in part by hormones, then a risk reduction strategy for banks might entail diversifying the endocrine profiles on their trading floors."

That's an intriguing observation. What do you think? I welcome comments from my fellow physicians …