[Editorial]

Good Medicine

Earlier this year, I ran into a good friend at an international meeting. I hadn't seen him for quite a while, so I was surprised to see how he had appeared to age. He was walking slowly and looked frail and tired. He spoke slowly and softly, and while his mind was still "with it," he appeared to be struggling to keep up with the events and issues surrounding him. I wanted to ask him if everything was okay but couldn't quite find the right words. I walked away from our brief encounter wondering how much longer he would want to, or be able to, participate in these events. He isn't a "youngster," so age-related changes were expected; it just seemed like his clock was moving too fast.

Several months later I ran into this same friend and couldn't quite believe the reversal! All of the negative trends previously mentioned appeared to have reversed. His appearance was bright and shiny, and his sharp wit had returned. He was moving fluidly and seemed to be in a dramatically improved state of mind! I couldn't quite believe the turnaround and wondered if my friend had found the fabled fountain of youth. After shaking his hand and exchanging pleasantries, I couldn't help but ask him what he had been drinking! In response, he relayed the following story: After returning from the international meeting months earlier, he went to see his primary care physician (affectionately called his "Quack"), who requested some routine laboratory studies. Those studies revealed a very low cortisol level and other treatable endocrinologic abnormalities. He was immediately referred to an endocrinologist with the diagnosis of panhypopituitarism. My friend had other plans but was told to not miss the appointment. The specialist confirmed the diagnosis and began medical treatment immediately with a pill. Before my friend got home that day, he felt like the lights had been turned on; he experienced almost immediate improvements from the medication. Interestingly, the endocrinologic deficits were not caused by any known pathologic process. There was no pituitary adenoma! Normal aging appeared to be the culprit and may have been the cause of a severe depression several years prior.

Growing older isn't always easy, but for most of us, most of the time, it's far better than the alternative. Diagnosing age-related deficiencies cannot only be lifesaving but lifestyle salvaging as well.

It's pretty clear that medical science can improve some of the unpleasant features of growing older. As a person who doesn't like to take medication, I can't help but be skeptical, but cases like my friend's have me rethinking my view. There are many features of aging that may be improved chemically. The medicinal treatment justification and utilization will always come down to balancing the risks and benefits. Very few popular pharmaceuticals come without some risk. One of the oldest available pharmaceutical classes that appears to be of interest to the aging man is selective estrogen receptor modulators (SERMs).[6] One of these medications, clomiphene, used in the past to induce ovulation, now appears to be useful in testosterone deficiency.[6] While clomiphene doesn't actually boost testosterone levels, it appears to produce that same effect chemically.

Along the same line, selective androgen receptor modulators (SARMs) help testosterone selectively target desirable effects, such as improving physical function, increasing lean body mass, and decreasing fat mass,[2,3,6] while minimizing side effects. Sounds pretty good to me, but time will tell how safe these medications will be. Not all of the wonder drugs popularized in the press have panned out when subjected to scientific study.

Antioxidants, for instance, have been touted for some time now in treatment protocols of everything from Alzheimer disease to diabetes and heart disease. Unfortunately, these supplements have not yet been proven effective and, in fact, can increase mortality if high doses are utilized[5,6,8]—clearly, a case of "too much of a good thing can be dangerous."

One of my favorite over-the-counter medications is resveratrol, a phytochemical in grapes and berries (and, consequently, in red wine). It has been well studied in vitro[4,6,7,9] and has had amazing results in lowering the risk of death in mice.[1,6] I just hope that humans have the same chemical pathways and have more similarities to mice than what meets the eye!

Needless to say, pharmaceuticals have the potential to ease some human deficiencies seen as a result of aging and support other functions dulled with the passage of time. They may be able to significantly improve the mental and physical aspects of the aging human without inflicting undesirable consequences. Hopefully, this research can progress as clinicians continue to balance the risks and the benefits. This should be an exciting area of research to watch in the near future.

—Edward M. Wojtys, MD
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DOI: 10.1177/1941738113516075

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