Television Does Not Cause Blood Clots

By Chuck Dinerstein — February 22, 2018

TV watching is now associated with an increased risk of forming blood clots in your legs or lungs (venous thromboembolic events - VTE), at least according to some research published in the Journal of Thrombosis and Thrombolysis.

The authors used a dataset of 15,158 participants in the Atherosclerosis Risk in Communities (ARIC) which looks prospectively at four communities in the United States. They assessed TV-watching as never, seldom, often and very often when the study began and two subsequent visits. They also asked about the usual suspect's age, gender, ethnicity, smoking status, cardiovascular disease and physical activity. The participants also completed a questionnaire about their physical activity. The participants were contacted twice a year and asked whether they had been hospitalized for a blood clot, either one that had appeared spontaneously or was felt to be secondary to another condition, like cancer, trauma, major surgery or prolonged immobility.

They found 691 episodes of blood clots and while they didn’t mention it, I will, that is an incidence of 4.5%. They showed “a positive dose-response relation between the frequency of TV viewing and VTE incidence (p for trend =0.007)” In adjusting for participants self-reported weight, 25% of the risk was due to obesity alone, the rest I guess was due to TV watching.

Before you cancel your Netflix subscription and abandon binge-watching, it would pay to look a bit closer at the data. First, there is no quantification of TV watching, how many hours is often? Second, this study compares apples and oranges. When you look at the characteristics of the groups stratified by TV watching it is clear that “very often” TV watchers are

- At least twice as likely to be African American
- 30% more often current smokers
- To have 40% more current cardiovascular disease
- Participation in recommended physical activity half as much as the other participants, who by the way, follow physical activity recommendations less than 50% of the time in the best of cases.

They go on to calculate hazard ratios, but given that the groups are so different and we have no real measure of TV watching why bother? I understand why the authors sought publication; it is the way you advance in academia. I know why the editors accepted the article, there is always space to fill. I just feel sad that the hour I spent with the paper is lost forever.

Rudolf Virchow, a German physician in the 1800s, described his eponymous triad for the formation of blood clots, a chemical within the blood that facilitates clot formation - hypercoagulability, an injury to the vessel and slow venous flow. Nothing has changed since that time, only our understanding of what constitutes an injury or hypercoagulability. Sitting on the couch watching TV can impede the venous return to your heart, but so can sitting at a desk for hours writing about this study. Obesity can hinder venous flow too so this study is not a surprise to anyone.

The authors cannot help themselves in making a recommendation, “avoiding frequent TV viewing might reduce the risk of VTE in obese patients, and prevent weight gain.” You would do as well getting up to get a snack while binge-watching and make it a kale salad if you are concerned about your weight.

Source: TV viewing and incident venous thromboembolism: the Atherosclerotic Risk in Communities Study Journal of Thrombosis and Thrombolysis DOI: 10.1007/s11239-018-1620-7