Genetic Testing vs FMTVDM: The Difference Between You MIGHT and DO have a health problem. Re: Promises and perils of using genetic tests to predict risk of disease

Re: Promises and perils of using genetic tests to predict risk of disease **Ian A Scott, John Attia, Ray Moynihan.** 368:doi **10.1136/bmj.m14**

We agree with Scott, et al [1] and their concern about much needed evidence of the benefits versus harms associated with the use of genetic testing. Like coronary artery disease, the use of blood tests – including genetic blood tests – do not tell us what is happening at the tissue level. It only provides us with an indirect inference, which when investigated was only poorly or at best moderately "correlated" with changes at the tissue level [2].

Of great concern is the consequence of actions taken by patients who have tested positively for a genetic marker, which may indicate a potential future health problem [3,4] but does not mean there is a current health problem [5]. E.g. prophylactic mastectomies to reduce the risk for breast cancer does not eliminate the risk of breast cancer as there – in the absence of removal of the skin itself – will be residual breast tissue left behind following the procedure; providing a false sense of security and not addressing the associated risk of uterine, ovarian, or male prostate cancer. Similarly, the absence of a genetic marker does NOT mean there is no risk of developing cancer or other health problems [6,7].

In the absence of more definitive quantitative diagnostic methods - which now exists [8] - many patients are confronted with the fears associated with such genetic markers and the lack of understanding, particularly about cancer [6-8].

As we have previously shown, the use of genetic testing may demonstrate a potential for a future health problem, but it does not mean there is a current health problem [3,4]. Fear must not replace knowledge [8].

References:

1. Scott IA, Attia J, Moynihan R. Promises and perils of using genetic tests to predict risk of disease. BMJ 2020;368. doi: https://doi.org/10.1136/bmj.m14
2. Fleming RM, Harrington GM. What is the Relationship between Myocardial Perfusion Imaging and Coronary Artery Disease Risk Factors and Markers of Inflammation? Angiology 2008;59:16-25.
3. Fleming RM, Dooley WC, Chaudhuri TK. Breast cancer genes, breast cancer and FMTVDM-BEST©℗ imaging. Integr Mol Med 2017;4(6):1-2, DOI:10.15761/IMM.313.
4. Fleming RM, Fleming MR, Dooley WC, McKusick A. FMTVDM-BEST©℗ Breast Cancer Imaging eliminates the fear of having BRCA1 and BRCA2 Breast Cancer Genes. J Clin Mol Med 2018;1(2):1-2. DOI: 10.15761/JCMM.1000107.
5. Fleming RM, Fleming MR. The Importance of Thinking about and Quantifying Disease like Cancer and Heart Disease on a "Health-Spectrum" Continuum. J Compr Cancer Rep 2019;3(1):1-3 (Article ID 100011).
6. Fleming RM, Fleming MR, Chaudhuri TK, McKusick A. Cancer: Our Body's Global Warming Warning. Biomed Research. Open Acc J Oncol Med 2019;3(1):238-239. DOI: 10.32474/OAJOM.2019.03.000154
7. Fleming RM, Fleming MR, Chaudhuri TK, Dooley WC. What is Cancer? Cancer Research in Oncology. 2019;2:1-4.
8. Fleming RM, Fleming MR, Dooley WC, Chaudhuri TK. Invited Editorial. The Importance of Differentiating Between Qualitative, Semi-Quantitative and Quantitative Imaging – Close Only Counts in Horseshoes. Eur J Nucl Med Mol Imaging. DOI:10.1007/s00259-019-04668-y. Published online 17 January 2020 https://link.springer.com/article/10.1007/s00259-019-04668-y

Competing interests: FMTVDM is issued to first author.

14 February 2020

Dr. Richard M Fleming, Ph.D., M.D., J.D.
Physicist-Cardiologist
Matthew R Fleming, BS, NRP (FHHI-OI-Camelot); Tapan K. Chaudhuri, MD (Eastern Virginia Medical School); William C. Dooley, MD (University of Oklahoma Health Science Center)
FHHI-OI-Camelot
Los Angeles, CA, USA

Respond to this article

Read all responses to this article