Inflammatory Bowel Disease and Takotsubo Syndrome: Cases of Horses or Zebras?

John E. Madias^{a, b}

^aFrom the Icahn School of Medicine at Mount Sinai, New York, NY, USA; ^bDivision of Cardiology, Elmhurst Hospital Center, Elmhurst, NY, USA

To the Editor,

I read with great interest the report by Mirijello et al. [1], describing the case of an 81-year-old woman with chronic stenosing Crohn's disease (CD) and recurrent takotsubo syndrome (TTS), and providing a review of the literature about inflammatory bowel disease (IBD) and TTS. The exact pathophysiology of TTS is still elusive, but the authors have provided a comprehensive list of the various plausible triggers and pathoetiological mechanisms, which could be instrumental in causing this enigmatic malady. The authors also draw attention to the many common underpinnings of CD or IBD and TTS [1]. One wonders if it is possible to talk about physical or emotional triggers in such patients with a devastating chronic illness as CD or IBD, or whether it is more suitable to consider a yin and yang conceptualization of a continuous physical/emotional complementary conglomerate of triggers constantly present, with episodic exacerbations. One also wonders how common is TTS in patients with CD or IBD in

general; for example, the presented patient had a most probable occurrence of TTS (i.e., "zebra" episode 3 years earlier (diagnosed erroneously at that time as acute coronary syndrome, i.e., "horse" episode) [1]. In the authors' review of the literature, there is a mention of recurrent TTS in 2 patients with IBD, 1 among 9 patients with CD, and 1 among 4 patients with ulcerative colitis [1]; however, TTS is probably often missed when atypical or mild TTS cases occur [2]. Indeed, a parallel is the frequent (i.e., 28%) detection of TTS, when prospectively sought after, in patients admitted to an intensive care unit for non-cardiac physical illnesses, implementing proactively serial echocardiography [3].

What can be done to enhance our insights about the pathophysiological link between IBD and TTS? First, increase our awareness and index of suspicion that such a link is real and often is manifest by occurrence of definite TTS [1], or "forme fruste" TTS cases [2]. Second, consider employing a currently available technology monitoring

the autonomic sympathetic nervous system input to the heart via the stellate ganglia, by recording and analyzing thoracic signals obtained via conventional electrocardiography (ECG) hook-up [4], in patients admitted with exacerbations of IBD. Third, consider having ambulatory patients with chronic IBD, particularly during IBD flare-ups using smartphone-based ECG technology for serial acquisition/transmission of ECGs to be analyzed for hallmarks of TTS (e.g., decrease in the amplitude of QRS voltage, T-wave inversions, or QTc-interval prolongation [5].

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