LETTER TO THE EDITOR

Arterial thromboembolic complications may be more common than expected in inflammatory bowel diseases

Dear Editor,

We wish to provide some perspective with regard to a recent article entitled “Thromboembolic events and cardiovascular mortality in inflammatory bowel diseases: A meta-analysis of observational studies” published in the eighth issue of your journal. The authors conducted a great systematic research and came to the conclusion that venous thromboembolic events were increased in inflammatory bowel disease (IBD) patients; and arterial thromboembolic events and cardiovascular mortality rates in IBD patients were not different from the non-IBD group. While this meta-analysis was conducted using several observational studies dealing with a great number of IBD patients we believe that the risk for arterial thrombotic events may be underestimated due to particular reasons. First when the researchers excluded studies on hospitalizations, the relative risk for arterial thromboembolism seemed to increase. Second the authors included studies with different inclusion criteria and study endpoints as it is one of the challenges in meta-analysis. Also arterial thrombotic events are rare both in IBD patients and non-patients; therefore, physicians might have preferred to publish them as case reports. We believe this may be the case from our observation of 3 arterial thrombotic events in our IBD cohort of nearly 400 patients. We would like to describe our cases and provide a brief discussion about the literature.

The first patient was a 40-year-old female Crohn patient with ileocecal involvement. Her IBD was under remission with azathioprine. The only identifiable cardiovascular risk factor was her smoking five cigarettes per day. She admitted to the hospital with pain and pallor in her left foot. Doppler ultrasonography (US) showed thrombi in left peroneal, tibialis anterior, and tibialis posterior arteries. The patient did not respond to standard medical therapy so her first and second toes had to be amputated. The second patient was a 67-year-old male with no history of IBD. He admitted with bloody diarrhea lasting for about a month, and pain and pallor in his left foot for the last three days. No cardiovascular risk factor could be identified. Colonoscopy was compatible with active extensive ulcerative colitis. Doppler US showed thrombi in left tibialis anterior, dorsalis pedis and tibialis posterior arteries. He did not respond to standard medical therapy as well and amputation of the fingers had to be performed. Our last patient was a 48-year-old left-sided ulcerative colitis patient. He was prescribed steroids for IBD flare in another medical center 15 days before admission. He admitted with right lumbar pain. Computerized tomography showed a thrombus in right renal segmentary artery and partial infarction of the right kidney. Computerized tomography did not show any cardiac focus for renal artery embolus and we quickly tapered steroids presuming it was the cause.

It is now accepted with great majority of the physicians that venous thromboembolic events are increased in IBD patients especially in the active phase [1,2]. Several predisposing factors were identified for thromboembolic complications, such as chronic inflammatory state, loss of natural anticoagulants, surgery, dehydration, immobilization, steroid therapy, smoking, and hyperhomocysteinemia, vitamin deficiencies, and thrombocyte abnormalities [1,3]. However, inherited risk factors for thromboembolism do not seem to be more prevalent in IBD patients [4]. Arterial thrombotic events are often encountered less frequently than venous thromboembolic events and are mainly reported as case reports in literature. Any artery can be affected like coronary, splanchnic iliac, renal arteries, or the branches of the aorta [5]. Like our two cases, infarction of the leg, foot, and toe often required amputation [5]. The need for surgery or endovascular approach causes difficulties in the treatment. An interesting fact about arterial thromboembolic disease in IBD patients is that they occur in the absence of traditional cardiovascular risk factors, such as older age or arterial hypertension. We have encountered only one venous thromboembolic event in the form of deep venous thrombosis of the leg in our IBD population, in contrast to the three arterial thromboembolic cases mentioned before. Thus, we believe arterial thromboembolic events may not be so rare as thought, and care must be taken to control the IBD activity and to minimize cardiovascular risk factors, since the treatment options are rare.

Sincerely,

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Conflict of interest

There is no conflict of interest claimed by any of the authors.
References


