Introduction:

Rheumatoid arthritis (RA) is a common, chronic, and systemic inflammatory autoimmune disease. Although RA preferentially targets the synovial lining of the joints, it can affect other organ systems including the lungs, heart, and blood vessels. Extraarticular manifestations of the systemic disease can occur in up to 46% of patients with RA over a 30-year period from disease onset. Rheumatoid arthritis is not generally considered to be a risk factor for venous thromboembolism (VTE), although abnormalities of coagulation factors have been found in patients with rheumatoid arthritis. The excess risk of noncardiac vascular disease in RA is likely to be related, in part, to the systemic inflammation associated with the extraarticular manifestations of RA.

Case Report:

A 25-year-old lady presented with pain and swelling with restricted movement of right lower limb for one month. She had arthritis involving multiple large and small joints of hands and feet over the last 4 years and was diagnosed as a case of rheumatoid arthritis (RA) 2 years back. She had been taking disease modifying antirheumatic drugs (DMARD) - methotrexate since then and continued it for one year. Subsequent investigations revealed that she developed deep venous thrombosis (DVT) of right posterior tibial and calf veins but no other predisposing factor was found. This case emphasize on the consideration of developing DVT in patients with Rheumatoid arthritis.

Discussion

Rheumatoid arthritis (RA) is a chronic systemic inflammatory disease of unknown etiology that primarily and took analgesic (indomethacin) occasionally. She has no history of rash, hair loss, and oral ulceration, redness of eyes, back pain or fetal loss. She had been normally menstruating, did not take any contraceptive and had no significant past medical, surgical or obstetrical history and she has no history of prolong immobilization.

On general examination, patient had average body built from Manikgonj got admitted in BSMMU Hospital on January 21, 2010 with the complaints of severe pain and swelling with restricted movement of right lower limb for one month. She had been suffering from pain and swelling of multiple small and large joints of hands and feet e.g proximal interphalangeal joints (PIPs), metacarpophalangeal joints (MCPs), wrist joints, knee joints bilaterally with morning stiffness (>1 hr) over the last 4 years and was diagnosed as a case of Rheumatoid arthritis (RA) 2 years back on basis of clinical background and positive rheumatoid factor (RF). Since then she had been taking methotrexate (10 mg weekly) and continued it for 1 year and took analgesic (indomethacin) occasionally. She has no history of rash, hair loss, and oral ulceration, redness of eyes, back pain or fetal loss. She had been normally menstruating, did not take any contraceptive and had no significant past medical, surgical or obstetrical history and she has no history of prolong immobilization.

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targets synovial tissues. It is relatively common with a prevalence of approximately 1% in adults all over the world.4

There are various extra-articular manifestations of rheumatoid arthritis that are associated with increased morbidity and mortality. Study shows extra-articular manifestations can occur in up to 40% of patients with RA over a 30-year period from disease onset.5 Deep vein thrombosis (DVT) till to-date is not generally considered to be among those of extra-articular manifestations of RA. However, data strongly suggesting rheumatoid arthritis to be a risk factor for developing venous thromboembolism (VTE) esp. DVT in hospitalized medical patients.

To determine the incidence of venous thrombo-embolism (VTE) in hospitalized patients with rheumatoid arthritis, a study conducted in USA with data obtained from National Hospital Discharge Survey (NHDS). The number of patients discharged from non-Federal short stay hospitals throughout the United States from 1979 to 2005 with a discharge code for rheumatoid arthritis showing DVT was diagnosed in 79,000 of 4,818,000 (1.64%) patients with rheumatoid arthritis and no joint operation.3

A community based cohort study consisted of 609 patients with rheumatoid arthritis diagnosed between January 1, 1955 and December 31, 1994 was carried out in Olmsted County, Minnesota with median follow up of 11.8 years. The 30-year cumulative incidence of venous thromboembolic events comprising DVT and pulmonary embolism was estimated to be 7.2%.2

In this reported case, all other possible causes that might contribute to development of DVT have been carefully excluded. cox 2 inhibitors are sometimes associated with thromboembolic episodes; however, our patient was taking indomethacin (cox 1 inhibitor) as and when necessary.6 So the cause of DVT in this patient might be Rheumatoid arthritis.

Conclusion

Thus, review of various medical literatures provides data suggesting rheumatoid arthritis to be a risk factor for venous thrombo-embolism (VTE) in hospitalized medical patients. So, the relationship between rheumatoid arthritis and DVT or PE should be further studied and heightened awareness of the risks of venous thrombo-embolism would be appropriate in caring for hospitalized patients with rheumatoid arthritis.

References: