Remitting Seronegative Symmetrical Synovitis with Pitting Edema Associated with Gastric Carcinoma

Rathindranath Sarkar1, Rudrajit Paul2, Debadiya Roy3, Indranil Thakur2, Goutam Lahiri4, Tanmay Jyoti Sau5, Ratul Ghosh3
1Professor and HOD, 2Assistant Professor, 3Resident, 4RMO, 5Professor, Dept. of Medicine, Medical College, Kolkata, West Bengal

Sir,

Remitting seronegative symmetrical synovitis with pitting edema (RS3PE) is a rare polyarthritis syndrome affecting mainly older adults (male>female). We here report a case of RS3PE associated with malignancy.

A 58 year old male patient was admitted with acute onset melena for three days and chronic fatigue for two months. On examination, the patient was found to be severely pale. There was no organomegaly or lymphadenopathy. An emergency blood test revealed hemoglobin level of 3 g/dl. Hence, immediate blood transfusion was given.

After stabilization, further examination revealed pitting edema of dorsum of both hands with tenderness of all small joints of hands (Figure 1). The patient stated that this painful hand had started one month ago. The pain was fluctuating in severity but the swelling of the dorsum was constant and increasing. There was no pain or swelling in any other joint of the body including the feet. The patient also had difficulty in making a grip. The symptoms had started in both hands simultaneously.

Further tests revealed a microcytic hypochromic anemia with low serum ferritin. An upper GI endoscopy was done which revealed a fungating, bleeding mass in the gastric body. Ultrasonography with power Doppler study of both hands was done which revealed thickened synovium with increased blood flow, suggestive of synovial inflammation, mainly in metacarpophalangeal joints. Serum ESR was 70 mm in 1st hour. But serum rheumatoid factor was negative. Thus, in view of the clinical history and imaging features, the hand pathology was diagnosed as remitting symmetrical seronegative synovitis with pitting edema (RS3PE).

Unfortunately, before any more tests could be done, the patient had a massive bout of melena and he passed away two days later. Post-mortem, the gastric biopsy report was collected from the pathology department, which revealed poorly differentiated gastric adenocarcinoma.

RS3PE is an acute onset polyarthritis syndrome which can occur idiopathically or as paraneoplastic complication in a malignancy. Recently, a diagnostic criteria has been proposed for the syndrome, which includes sudden onset polyarthritis, bilateral hand pitting edema, age>50 years and negative rheumatoid factor. However, in many cases, the diagnosis remains purely clinical.

RS3PE has been described in association with malignancy only in a few previous reports. The commonly reported malignancies include lung cancer, leukemia and endometrial carcinoma. This has also been reported in gastric carcinoma only a handful of times.

RS3PE of idiopathic variety responds very well to low dose steroids. The role of steroids in paraneoplastic RS3PE is variable. The rheumatological symptoms may remit with successful treatment of the underlying carcinoma. We present this case to sensitize clinicians to this rare paraneoplastic rheumatological phenomenon. Any old patient presenting with RS3PE should be evaluated for underlying malignancy.

References