Gastro-Intestinal Bleeding in Scrub Typhus

Sir,

Scrub typhus, caused by Orientia tsutsugamushi, is a widespread disease in Asia and Pacific Islands. The clinical picture of scrub typhus consists of mainly fever, rash, myalgia and lymphadenopathy. Immunofluorescence Assay (IFA) and Polymerase Chain Reaction (PCR) are diagnostic of scrub typhus. In our part of the world, this disease has been documented with new genotypes.1

Two patients of scrub typhus are presented who had gastrointestinal bleeding. The diagnosis was confirmed with IFA in patient 1 and with MIF and PCR in patient 2. The clinical details and laboratory investigations are given in Table 1. Patient 1 presented to hospital on 10th day of fever with melaena for one day, was hemo-dynamically stable and improved. However patient 2 developed melaena during hospital stay on 14th day, was hemo-dynamically stable and improved. However, the clinical features of gastrointestinal tract can lead to gastrointestinal bleeding.2 The major endoscopic features that can develop in scrub typhus are superficial mucosal hemorrhage, multiple erosions and ulcers without any predilection sites, and unusual vascular bleeding.4 The stomach lesions were more frequent and severe than the duodenal lesions.3

Kim SJ et al, in a study, noted 58 patients of total 256 patients of scrub typhus had gastro-intestinal symptoms and were subjected to esophago-gastro-duodenoscopy. The endoscopic findings were graded as Grade I, normal, nonspecific hyperemia; Grade II, distinct hyperemia, petechiae, purpura; Grade III, superficial hemorrhage, erosion; and Grade IV, ulcer, active bleeding. In 83.3% of patients there were multiple lesions without any predilection sites. The patient with clinically severe disease had more endoscopic findings and higher grades of lesions were noted in patients with cutaneous lesions. Both patients of scrub typhus in our report with gastro-intestinal bleeding had rash also. The major endoscopic features that can develop in scrub typhus are superficial mucosal hemorrhage, multiple erosions and ulcers without any predilection sites, and unusual vascular bleeding.4

In 83.3% of patients there were multiple lesions and laboratory investigations are given in Table 1. Patient 1 and with MIF and PCR in patient 2. The clinical details and laboratory investigations are given in Table 1. Patient 1 presented to hospital on 10th day of fever with melaena for one day, was hemo-dynamically stable and improved. However patient 2 developed melaena during hospital stay on 14th day, was hemo-dynamically stable and improved.

We have published a larger series of 60 patients over 14 months follow up in the January issue of The Ganga Ram Journal (online acess:www.jsgrh.com) in which we have done endoultrasound guided fine needle aspiration cytology in all patients who presented with bilateral ankle arthritis and these findings were co-related with CT scan and ACE levels.

In our study we have found that Mantoux, serum quantiferon gold test and serum ACE levels had a poor diagnostic value with a specificity of 20% for both Mantoux test and serum quantiferon test. Both these tests had a very positive predictive value of 51.3% and 53.4% respectively. Although CT scan had sensitivity of 100% in our study but it showed a likelihood of over diagnosing

Table 1: Clinical details and laboratory investigations of patients

<table>
<thead>
<tr>
<th>Age in Years/Sex</th>
<th>Patient 1</th>
<th>Patient 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever Duration (Days)</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Chills/Rigors</td>
<td>+/-</td>
<td>+/-</td>
</tr>
<tr>
<td>Vomiting</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Headache/Myalgia</td>
<td>+/-</td>
<td>+/-</td>
</tr>
<tr>
<td>Abdominal Pain</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Lymphadenopathy</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Hepato-splenomegaly</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Rash</td>
<td>+</td>
<td>Ecchymosis</td>
</tr>
<tr>
<td>Gastro-Intestinal Bleeding</td>
<td>Malaena</td>
<td>Malaena, bleeding oral mucosa</td>
</tr>
<tr>
<td>Urea/Creatinine (mg/dL)</td>
<td>134/2.5</td>
<td>198/ 4.2</td>
</tr>
<tr>
<td>Bilirubin/SGOT/SGPT/ Alkaline Phosphatase (IU)</td>
<td>1.2/100/115/441</td>
<td>9.5&gt;500/500&gt;1000</td>
</tr>
<tr>
<td>Haemoglobin (gm %)</td>
<td>11.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Total Leukocyte Count (/mm³)</td>
<td>4650</td>
<td>7900</td>
</tr>
<tr>
<td>Platelet count (/mm³)</td>
<td>1,80000</td>
<td>70,000</td>
</tr>
<tr>
<td>Drug Treatment</td>
<td>Doxycyclin, Ceftriaxone</td>
<td>Azithromycin, Ceftriaxone</td>
</tr>
</tbody>
</table>

References


Sanjay K Mahajan
Assistant Professor, Department of Medicine, Dr. RP Govt. Medical College, Tanda, Kangra, Himachal Pradesh
Received: 02.04.2010; Revised: 27.09.2010; Re-revised: 22.11.2010; Accepted: 24.11.2010

Acute Inflammatory Ankle Arthritis in Northern India

Sirs,

We read the article of Garg et al with great interest. The authors have published report of 18 cases of acute inflammatory arthritis in which 10 cases have been diagnosed as Sarcoidosis. The diagnosis has been achieved in all cases based on Computerized Tomography (CT) scan and Mantoux test and there is no histopathological diagnosis or serum Angiotensin converting enzyme (ACE) level co-relation in this study.

We have published a larger series of 60 patients over 14 months follow up in the January issue of The Ganga Ram Journal (online acess:www.jsgrh.com) in which we have done endoultrasound guided fine needle aspiration cytology in all patients who presented with bilateral ankle arthritis and these findings were co-related with CT scan and ACE levels.

In our study we have found that Mantoux, serum quantiferon gold test and serum ACE levels had a poor diagnostic value with a specificity of 20% for both Mantoux test and serum quantiferon test. Both these tests had a very positive predictive value of 51.3% and 53.4% respectively. Although CT scan had sensitivity of 100% in our study but it showed a likelihood of over diagnosing
tuberculosis in 20% of subjects. CT thorax had a low specificity of 64% in diagnosing tuberculosis and had a very high negative predictive value of 100%.

We have found that endoscopic ultrasound guided FNAC is useful in the setting of hilar / mediastinal lymphadenopathy in patients with bilateral ankle arthritis as by this modality we had 100% pick up rate with no morbidity or mortality associated with this procedure. In contrast to observation made by Garg et al that majority of cases were due to Sarcoidosis, in our series they were due to tuberculosis (73.3%). We would like to suggest that biopsy confirmation either (endoscopic guided ultrasound) or endobronchial USG guided should be done in patients who presents with bilateral ankle arthritis with mediastial lymphadenopathy to reach to a definite diagnosis.

References

Atul Gogia", Atul Kakar*
"Consultant Physician Consultant Physician and Rheumatologist, Department of Medicine, Sir Ganga Ram Hospital, Rajinder Nagar, New Delhi-110060.

Etiological Presentation of Inflammatory Arthritis

Sir,

We would like to congratulate Dr. Garg, Dr. Malviya, et al for conducting a study on the aetiologic presentation of acute inflammatory ankle arthritis. This has been similar to the series published by us in APLAR 2006 which was a 14 month prospective follow up study on patients with bilateral ankle arthritis and mediastinal lymphadenopathy.1 The aim of our study was to scientifically categorize the patients etiologically, rather than empirically cover them with anti-tubercular treatment (ATT) and steroids.

We included Angiotensin converting enzyme (ACE) levels in all our cases, fine needle aspiration (FNA) / biopsy was included only if the Mantoux test was negative. A positive Mantoux test and contrast enhanced computerized tomography (CECT) chest specifically central necrosis definitely inclines us toward tubercular etiology but the absence of necrosis and a negative Mantoux test cannot always be conclusive for sarcoid. It would be wise to substantiate it with histopathological evidence, which is the best with endoscopic ultrasound (EUS) and FNA. It would give us a firmer ground to start the patient on steroids and steroid sparing drugs in our tubercular burdened country. Diagnosing the correct etiology for mediastinal lymphadenopathy helps direct precise therapy and prognosis. Thoracoscopic procedure for tissue biopsy carry a risk of complications in 25% -35% of cases.2 The advantage of EUS is the ability to perform FNA during the procedure for tissue diagnosis. The procedure is in comparison with other alternative options, safe, less invasive and does not require general anesthesia for hospitalization. The complication rate is extremely low (0.5% - 2.3%) with several studies reporting no complications. EUS has the ability to image the aortopulmonary window, the subcarinal nodes, inferior mediastinum, and entire posterior part of the mediastinum which is not possible with other modalities using FNA like transbronchial CT or transtracheal procedure. This meta-analysis and systematic review shows that the pooled sensitivity of EUS for mediastinal lymphadenopathy is high and use of FNA during the procedure, further increases such sensitivity in accordance with reporting by the Quality of reporting meta-analysis (QUOROM).2

In our study we treated subset of our patients with Sarcoidosis and ankle arthritis with Non steroidal anti-inflammatory drugs (NSAIDs) which could also have been considered in the present study before starting the patient on steroids, hydroxychloroquine and methotrexate.

In resource constrained country like ours, this study (Garg et al) may be a good method to categorize patients on the basis of symptoms and minimal investigations but this protocol does not clear the status of patients with positive Mantoux test and non necrotic nodes and negative Mantoux with necrotic nodes that are often encountered in clinical practice.

References

Lalit Duggal*, Pooja Khosla*
'Department of Medicine, Sir Ganga Ram Hospital, Rajinder Nagar, New Delhi 110 060.

Reply from Author

Sir,

We appreciate comments by Drs. Atul Gogia, Atul Kakar, and Pooja Khosla on our paper entitled ‘Acute Inflammatory Ankle Arthritis in Northern India - Lofgren’s syndrome or Poncet’s disease?’. Both the comments are from the department of medicine of the same hospital in Delhi. Using a similar screening procedures one group found tuberculosis (TB) in -73% while the other group reported TB in 58%. These differing figures from the same department are of concern and put question mark on the results. Two recent reviews have emphasized the difficulty in distinguishing between tuberculosis and sarcoidosis on cytopathology except when acid-fast bacilli or unequivocal necrosis is seen in the aspirate.2-3 This could be the reason for such wide variation in the figures of TB within the same department. We would look forward to seeing the paper by Gogia and Kacker in a peer-reviewed journal. In our series only 44% of the patients were diagnosed as having tuberculosis.1

As the saying goes ‘the proof of the pudding is in eating it’! If 73% or 58% of our patients actually had tuberculosis (according to the figures of Gogia-Kakar and Khosla respectively) a significant number of them (-30% according to Gogia and Kakar, and 14% according to Khosla) would have developed tuberculosis. Yet, none of them developed tuberculosis in the follow-up. It may be noted that ours is a superspeciality department of rheumatology as against their department of general medicine. Thus the patient population is likely to be different. This could also explain some of the differences in the results.

Our use of methotrexate, hydroxychloroquine combined with a short course of glucocorticoids was necessary as most of them had already received non-steroidal antiinflammatory drugs (NSAIDs) prior to visiting our department. It is known
that only ~ 50% of patients with Lofgren’s syndrome recover with nonspecific treatment e.g. NSAIDs. Therefore, we still recommend a simple clinical approach for inflammatory ankle arthritis for which there is no other obvious explanation i.e. a properly performed Mantoux test combined with imaging for hilar lymphadenopathy (bilateral or not bilateral). This is a time-tested approach extensively reported in the literature. It is interesting to note that Visser et al in their large study on Lofgren syndrome came to the conclusion that even if only 3 of the 4 clinical features namely symmetrical ankle arthritis, symptoms of less than two months, age below 40 years, and erythema nodosum, are present, an exceptionally high sensitivity of 93%, specificity of 99% with a positive predictive value of 75%, and a negative predictive value of 99.7% for the diagnosis of Lofgren syndrome is achieved. These workers have suggested that in this clinical setting even a chest x-ray may not required for the diagnosis. Finally, whatever may be said about ultrasound guided endoscopic trans-oesophageal aspiration cytopathology procedure, it is an invasive procedure that is expensive and requires expertise that may not be available in every centre. Therefore, we believe that for most patients with unexplained inflammatory ankle arthritis our diagnostic approach is practical and useful for physicians in peripheral hospitals and in general practice. Of course, in patients where there is doubt regarding diagnosis, this procedure may be useful.

References


S Garg, AN Malaviya, S Kapoor, R Rawat, D Agarwal, A Sharma
Department of Rheumatology, ISIC Superspeciality Hospital, New Delhi - 110070.
Received: 17.02.2011; Accepted: 09.03.2011