

A Case Of Erythema Nodosum With Hilar Lymphadenopathy

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Citation

A Gogi. *A Case Of Erythema Nodosum With Hilar Lymphadenopathy*. The Internet Journal of Rheumatology. 2003 Volume 1 Number 2.

Abstract

A 22-year-old lady presented at the Worthing Hospital with a 3 weeks complaint of infection of her legs and was found to have polyarthralgia, erythema nodosum and bilateral hilar lymphadenopathy. She was diagnosed to have acute sarcoidosis and improved with high dose Non Steroidal Anti-Inflammatory Drugs NSAIDs.

CASE REPORT

A 22-year-old lady presented at the Worthing Hospital with a 3 weeks complaint of infection of her legs. She had started to develop gradually progressive swelling of both her legs in the past 3 weeks. The swelling was unrelated to posture or the time of day and had been gradually increasing. She had seen her General Practitioner 2 weeks after the swelling started, had her throat swabbed and been started on Penicillin for cellulitis. Things had not improved however and for the previous 3 days before she came to the hospital. Both her legs had become red and tender. She was finding it difficult to walk due to the tenderness.

A more detailed history revealed that she had swollen and tender wrists 4 weeks back for 2 weeks, a bout of gastroenteritis 2 weeks back which again subsided spontaneously and had been feeling generally unwell and rundown for the past 3 days. At present, there was no cough, shortness of breath, GI symptoms or chest symptoms. Her past medical history was unremarkable and apart from a short holiday in Spain the previous year, there was no other history of foreign travel. She was allergic to latex and had been on Penicillin and Ibuprofen since her recent symptoms had begun but was not on any other regular medication. She lived with her partner and had given birth to a healthy baby girl 15 weeks back. She was an occasional smoker and did not drink.

On examination, she was alert and comfortable at rest. She was not pale, jaundiced or febrile. Apart from 1 lymph node in the left supraclavicular region, there was no significant lymphadenopathy. Her pulse rate was 96/minute, regular and

her respiratory rate was 14/minute. Her heart sounds were normal and her chest was clear. The abdomen was soft and non-tender and the central nervous system was normal.

Her joint examination revealed that the right wrist was slightly red and swollen compared to the left which was normal. She also had red, tender, raised, firm nodular lesions on the dorsum of both her legs and ankles. The lesions were more marked on the right leg and were not hot or discharging, i.e there was no evidence of cellulitis. There were 2 small nodules appearing below both the knees. The ankle movements were painful but had a good range. There was no sensory vascular deficit distal to the lesions.

A diagnosis of erythema nodosum with some ankle joint involvement was made.

DISCUSSION

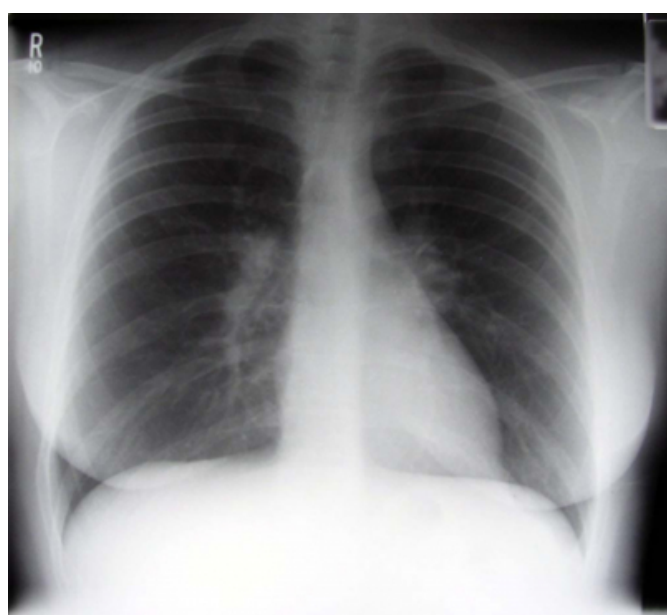
Erythema nodosum is a non-specific lesion occurring in a variety of conditions. It presents as painful or tender dusky blue-red nodules over shins or lower limbs, which fade over 2-3 weeks leaving a bruised appearance. It is more common in young female adults and may be associated with arthralgia, malaise and fever. Inflammation occurs in the dermis of skin and the subcutaneous layer, involving panniculitis. Common causes in UK include streptococcal infection, sulphonamides, OCPs, Aspirin, NSAIDs, sarcoidosis and idiopathic causes. Less common causes are Yersiniasis, Fungal infection, TB, leprosy, inflammatory bowel disease and chlamydia.

Her initial blood tests in our hospital showed her Hemoglobin to be 12.1, White cells 12.4 with neutrophils

9.4 and platelets 492. She had normal urea and electrolytes and normal lung function tests LFTs with a slightly raised alkaline phosphatase at 138. Calcium was 2.39 and Phosphate 1.02. Her Urine dipstick and ECG were normal. Her ESR was 46 and CRP was 108.

Her chest X-ray revealed marked bilateral hilar lymphadenopathy, with hilum markedly enlarged on the right. The lung peripheries were clear and the heart borders were normal. A provisional diagnosis of acute sarcoidosis was made and the patient admitted for further investigations and analgesia.

Figure 1



On the ward, she had high dose Non Steroidal Anti-Inflammatory Drugs NSAIDs to relieve her pain. Steroids were considered but deferred, pending the Serum ACE levels, ASO titers and Auto-Antibodies, since there was a chance of the erythema nodosum being secondary to an infection and also because, steroids are considered the second line of treatment, even in sarcoidosis.

Her Latex Rheumatoid factor was 19 (normal range being 0-20). Anti-Streptolysin titers were less than 100. All the

Auto-antibodies (nuclear, mitochondrial, smooth muscle, gastric parietal, reticulin, LKM) were negative. The Serum ACE was 21 (normal Range being 8-52).

The most likely diagnosis with this sort of presentation of polyarthralgia, erythema nodosum, raised inflammatory markers, bilateral hilar lymphadenopathy, negative auto-antibodies and rheumatoid factor, despite a normal Serum ACE level would be acute sarcoidosis. Luckily, this patient's symptoms improved with bed rest and NSAIDs.

Sarcoidosis is a multi-system granulomatous disorder of unknown origin, commonly affecting young adults and usually presenting with bilateral hilar lymphadenopathy (BHL), pulmonary infiltration and skin or eye lesions. It is most often detected on routine chest X-Ray and has great geographical variation. Prevalence in the UK is 19 in 100,000 population, being commoner in the USA and rare in Japan. The immuno-pathology consists of non-caseating sarcoid granulomas, decreased cell-mediated reactivity to Tuberculin and Candida and overall lymphopenia with increased B-cells. The clinical features are myriad and it can affect almost any or all the organs in the body. It once used to be confused with Beryllium poisoning though contact with Beryllium now is strictly controlled. It also had to be distinguished from Lofgren's syndrome, which has now almost certainly proved to be a benign self-limiting form of acute sarcoidosis. Diagnosis is mainly by BHL, raised ESR, raised Calcium, serum ACE 2 standard deviations above normal, Transbronchial biopsy and Lung function tests. Treatment is with high dose NSAIDs and, if not improving after 6 months of diagnosis, Prednisolone for 6-12 months. Systemic Prednisolone is to be given to patients with eye involvement or persistent hypercalcemia. Myocardial and neurological sarcoidosis are also treated with steroids. Follow-up is with lung function tests.

References

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