Presentation of Crohn's Disease as Metastatic Cutaneous Non-Caseating Granulomatous Lesions

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Key words: Crohn's disease, non-caseating granulomas, metastatic Crohn's disease, cutaneous involvement

IMAJ 2003;5:897–898

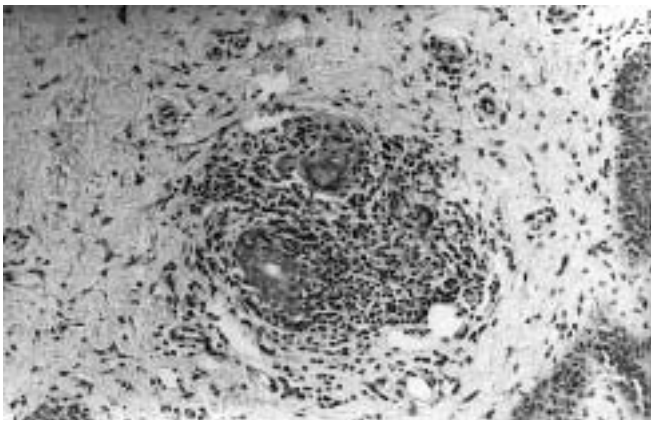
The incidence of cutaneous lesions associated with inflammatory bowel disease varies from 2 to 34% [1–5]. The most frequently described skin manifestations of IBD are pyoderma gangrenosum and erythema nodosum [1–5]. Metastatic Crohn's disease is a rare cutaneous manifestation of Crohn's disease. It is characterized by a non-caseating granulomatous skin reaction in Crohn patients with a clinical course that does not necessarily correspond to the severity of bowel lesions and is usually resistant to topical therapy [1–5]. We describe the case of a patient with MCD whose cutaneous lesions preceded the gastrointestinal manifestations of Crohn's disease by 13 months and responded fully to conventional therapy for IBD, i.e., oral metronidazole and rectal steroid and mesalamine suppositories at the first episode, and rectal steroid and mesalamine suppositories at a flare-up.

Patient Description

A 45 year old previously healthy woman with constant anal pain and very mild rectal bleeding was admitted to the gastroenterology department of the Soroka University Medical Center in June 1997. Her bowel habits were normal. On physical examination there were multiple glossy erythemathous papules with evidence of scratching on the extremities and the perianal area. An anal fissure was also seen. The patient reported an 18 month history of generalized erythemathous papules and indurated, tender, itching nodules predominantly involving the extensor aspects of both arms as well as the perianal region. These lesions waxed and waned during this period and erupted again 2 weeks before admission to the hospital. The patient was seen at the dermatology clinic where biopsies were taken from representative skin lesions. The histopathology diagnosis was non-caseating granulomas [Figure] with histiocytes and numerous multinucleated giant cells. Necrobiosis lipoidica was also seen in the biopsy specimens. A CD 68 stain was positive for histiocytes within the granulomas, but specific stains, including Ziehl-Nielsen, periodic acid-Schiff and methenamine silver, were negative for *Mycobacteria* and fungi. There was no polarizable material in the skin lesions. Topical antibiotic and steroid preparation were applied over the cutaneous lesions but no change was noted.

Total colonoscopy including intubation of the terminal ileum demonstrated severe inflammation of the distal 7 cm in the rectum, with multiples ulcers. The rest of the colon and the terminal ileum were normal, endoscopically and on histologic examination of biopsy specimens from the normal-appearing tissue. However, biopsies from the rectum revealed chronic active inflammation in the lamina propia, with focal active colitis and cryptitis, compatible with IBD, most likely Crohn's disease. A small bowel follow-through radiogram was normal, as were the rest of the laboratory tests.

The patient was diagnosed as suffering from active Crohn's disease with metastatic cutaneous lesions. She was treated with oral metronidazole, rectal hydrocortisone foam and 5-ASA suppositories. One month after the initiation of this treatment complete resolution of all the cutaneous, perianal and rectal lesions was noted. A year later there was an acute flare-up of Crohn's disease with exacerbation of the skin lesions that again responded fully to therapy. Since then the patient has been in remission on oral mesalamine therapy alone, with no clinical evidence of relapse of any skin or perianal lesions.



Cutaneous biopsy showing non-caseating granulomas with histiocytes and numerous multinucleated giant cells.

Comment

Metastatic Crohn's disease is a rare granulomatous cutaneous inflammation of unknown pathogenesis with erythemathous papules, plaques or nodules that can appear anywhere on the

IBD = inflammatory bowel disease
MCD = metastatic Crohn's disease

skin surface. It is characterized microscopically by a non-caseating granulomatous infiltration of the dermis and sometimes necrobiosis [1–5]. The diagnosis is established by the combination of a compatible skin biopsy and typical clinical, endoscopic, radiologic and histologic evidence of Crohn's disease. The diagnosis of MCD is easier to reach in the presence of a clear temporal association between the cutaneous and intestinal/perianal manifestations, but can be very difficult in cases like the present one in which the cutaneous lesions precede the bowel manifestations. In most reports of MCD the cutaneous lesions were temporally associated with documented intestinal Crohn's, particularly with colon involvement. However, the lesions may appear a long time before Crohn's disease is manifested, as has been reported in children [4,5]. In addition, the severity of the cutaneous lesions does not always correspond to the severity of Crohn's disease [4,5].

Because MCD is a rare entity, no trials have been conducted to guide current therapy for the cutaneous manifestations, and various therapeutic regimens have been suggested including oral metronidazole, oral mesalamine, corticosteroids, azathioprine, and infliximab, with anecdotal reports of varying degrees of success [1–5].

We report the case of a 45 year old woman with biopsy-proven diffuse MCD involving the extremities, which preceded the appearance of rectum and perianal manifestations of Crohn's by 13 months and did not correspond with the severity of the bowel disease. Other possible causes of granulomatous skin lesions such as sarcoidosis, mycosis, syphilis and polyarteritis nodosa were ruled out by clinical and/or specific laboratory findings. The cutaneous lesions did not respond to treatment with topical antibiotics or corticosteroid solutions as previously reported in the literature [2–5], but responded promptly and dramatically to the combination of oral metronidazole, rectal mesalamine and steroid suppositories when the diagnosis of Crohn's disease was reached 1 year later. When the MCD flared up it was again successfully treated with rectal mesalamine and rectal steroids therapy. Since then the patient has been completely asymptomatic on oral mesalamine therapy.

References

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