

# CASE REPORT

## CROHN'S GRANULOMA OF SKIN IN IBD COLITIS

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**ABSTRACT:** Crohn's granuloma is a sarcoid-like lesion, with collections of monocyte/macrophages cells (epithelioid histiocytes) and other inflammatory cells, including lymphocytes and eosinophils with occasional giant cells. They are seen rarely in extraintestinal sites. Crohn's granuloma is highly characteristic of Crohn's disease. It responds to treatment of Crohn's disease. A case report of 31 year old male patient with IBD colitis having Crohn's granuloma on left elbow. On treatment with prednisolone frequency of intestinal symptoms decreased and the ulcerative lesion also healed. Then azathioprine was given for definitive management.

**KEYWORDS:** Crohn's Granuloma, Crohn's disease.

**INTRODUCTION:** The incidence rate of Inflammatory Bowel Disease (IBD) in South Asian patients for the period 1996–2001 was 15.19/10 [6.41/10 for Crohn's Disease (CD), 6.70/10 for Ulcerative Colitis (UC), and 2.08/10 for Inflammatory Bowel Disease-Unclassified (IBD-U)].<sup>[1]</sup> The presence of granuloma is highly characteristic of CD and is not found in UC. Crohn's granuloma is a sarcoid-like lesion, with collections of monocyte/macrophages cells (epithelioid histiocytes) and other inflammatory cells, including lymphocytes and eosinophils with occasional giant cells. Granulomas are commonly seen in the intestinal tract but they can also be seen rarely in skin, eye, and liver (Extraintestinal Granulomas).<sup>[2]</sup> IBD colitis (ulcerative colitis or crohn's disease) is immune mediated chronic condition of colon and small intestine.<sup>[3]</sup> Crohn's granuloma is highly characteristic of crohn's disease, it is never found in ulcerative colitis even on extensive review of literature no or little association between crohn's granuloma and UC has been found.

**CASE REPORT:** A 31 year old male presented with chief complaints of loose stools 6-8/day, blood and mucus stained, along with tenesmus for more than 6 months. Ulcerative lesion (app.size 3cm x 2cm) on the left elbow was present for 2 months with discharging pus which increased with flare up of intestinal symptoms. There was h/o moderate grade fever associated with rigor and chills.

**EXAMINATION:** On presentation, patient was fully conscious, oriented to time, place and person. Blood pressure was 120/70mm of Hg, Respiratory rate was 14/min, Pulse rate was 90/min and oral temperature was 98.4°F. Cardio-Respiratory and Abdominal examination were normal. He had ulcerative lesion on elbow with discharging pus (as shown in figure no. 1-3). Cardio-Respiratory and Abdominal examination were normal.

**INVESTIGATIONS:** Hb was 12.2 (13-16 gm%), TLC was 7600 (4000-11000/mm<sup>3</sup>), Platelet count was 3.11(1.5-4.0 lac/mm<sup>3</sup>), ESR was 60mm in 1<sup>st</sup>hr, Blood urea was 20 (15-38 mg/dl), Serum Creatinine was 0.7(0.6-1.3 mg/dl), Serum Sodium was 137 (135-148 mEq/l), Serum Potassium was 4.5 (3.5-5.5 mEq/L), C-Reactive Protein was 23.0mg/L (< 5mg/L), Stool for CDTA (Clostridium difficile toxin

## CASE REPORT

assay) was negative. Colonoscopy (as in figure 4-7) showed edematous mucosa with loss of mucosal vascular pattern, hyperemia, granularity, friability and ulceration in rectum, sigmoid and descending colon. Changes were continuous with no skip lesions. Skin biopsy (as in figure 8-10) showed many periadnexal epithelioid cell, granuloma composed of epithelioid cell, lymphocyte, plasma cell and multinucleated giant cell. Normal looking adnexa and vessel were seen within the dermis along with fibroconnective tissue infiltrated with inflammatory cell. PCR (polymerase chain reaction) for mycobacterial tuberculosis was negative.

**MANAGEMENT:** Patient was initially diagnosed as a case of UC with Pyoderma left elbow. Patient was treated with antibiotics for one month for ulcerative skin lesion. Biopsy of ulcer on skin suggested Crohn's granuloma (Metastatic Crohn's Disease). Intestinal symptoms did not respond to mesalamine which was started as initial treatment. Subsequently, prednisolone was given to the patient. Frequency of intestinal symptoms decreased and the ulcerative lesion also healed after prednisolone. Then azathioprine was given for definitive management.

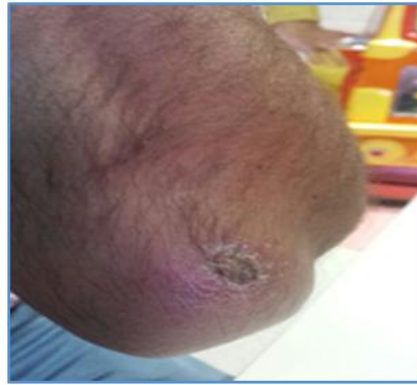
**DISCUSSION:** Patient presented with h/o blood and mucus in stools. Colonoscopy showed findings of UC. There was no response to mesalamine given initially but intestinal symptoms and ulcerative skin lesion improved with prednisolone which was administered later. This response favoured the diagnosis of IBD Colitis/Crohn's colitis with Crohn's granuloma of skin well supported by histopathological examination report of the skin lesion. Histologically Metastatic Crohn's Disease usually show noncaseating granuloma within dermis, occasionally extending into the subcutaneous tissue. In some cases the granuloma were arranged perivascularly but vessel wall were normal.<sup>[4]</sup> Crohn's granuloma at sites other than intestinal site is very rare and seen in metastatic crohn's disease.<sup>[5]</sup> There is no consistent relationship between appearance of metastatic lesion and activity of bowel disease. Although in our patients lesion tend to appear when gastrointestinal disease was active, other reports have described lesion appearing when bowel disease was quiescent.<sup>[6]</sup> This is a rare case of IBD Colitis with crohn's granuloma [Metastatic Crohn's Disease].



**Fig. 1: Ulcerative lesion at left elbow**

**Fig. 2: Ulcerative lesion at left elbow**

## CASE REPORT

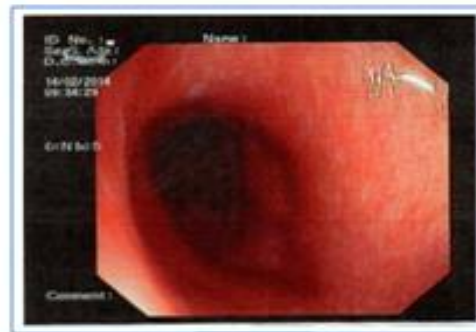


**Fig. 3: Healing of ulcerative lesion at left elbow**

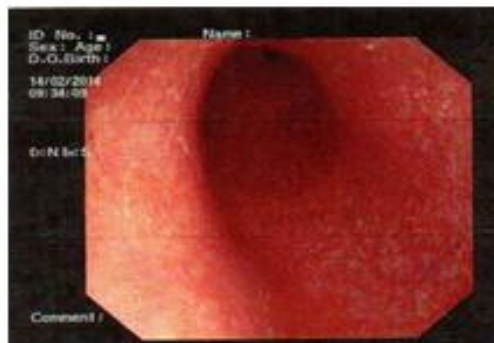
### ULCERATIVE LESION AT LEFT ELBOW: COLONOSCOPY:



**Fig. 4: Erosions, erythma, loss of vasularity and friability in rectum**



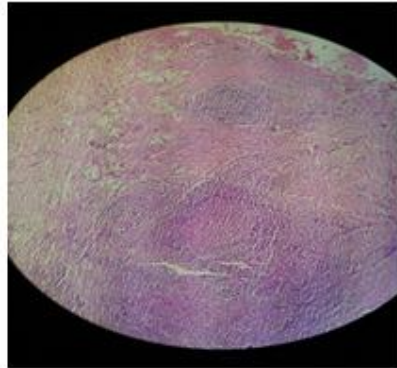
**Fig. 5: erosions, erythma, loss of vasularity and friability in sigmoid colon**



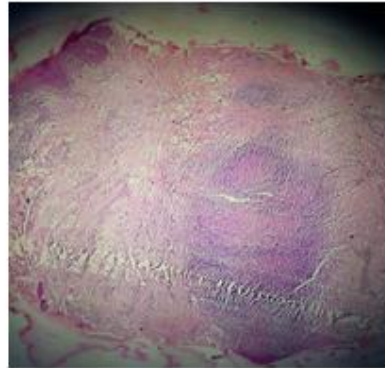
**Fig. 6: erosions, erythma, loss of vasularity and friability in transverse colon but less marked**

## CASE REPORT

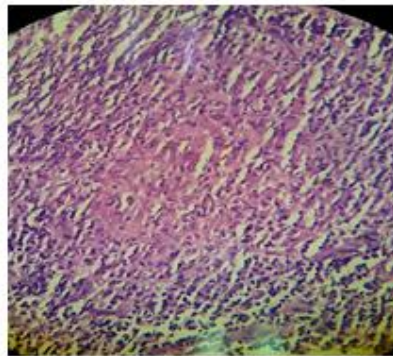
### SKIN BIOPSY (HEMATOXYLIN AND EOSIN STAINED):



**Fig. 7: Histopathology of skin biopsy**



**Fig. 8: Histopathology of skin biopsy**



**Fig. 9: Histopathology of skin biopsy**

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## CASE REPORT

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