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RESEARCH ARTICLE

ALOPECIA IN ULCERATIVE COLITIS– A CASE SERIES

*** Parveen Malhotra, Vani Malhotra, Pranav Malhotra, Navya Malhotra, Yogesh Sanwariya, Shruti**

Department of Medical Gastroenterology, Obstetrics and Gynaecology, PGIMS, Rohtak,Haryana, VMCC & Safdarjung Hospital, HIMSR, Hamdard Medical College, New Delhi, India

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****Corresponding author:***
Parveen Malhotra

ABSTRACT

Introduction-Inflammatory bowel disease (IBD) is constituted by ulcerative colitis and Crohn's disease. In western countries, both have almost equal representation but in India, predominantly ulcerative colitis is seen. Ulcerative colitis affects large bowel whereas Crohn's disease can be seen throughout gastro-intestinal tract but both of them can have extra-intestinal involvement of skin and hairs, symptoms of which can start before, simultaneously or later in the course of IBD. **Case Series-** Our instituteis tertiary care centre and thus we get plenty of referrals including suspected cases of IBD. Hence, there is good load of IBD patients who come for regular follow up for last many years. We analysed 100 males and 100 females of confirmed IBD who were on regular follow up for many years for hair loss. Out of 100 males, 28 (28%) had hair loss whereas out of 100 females, 40 (40%) had hair loss during course of this disease. **Conclusion-**The treating gastroenterologist and physicians should be extra vigilant for extra-intestinal manifestation of IBD which include hair fall also, which has huge cosmetic value, especially in young patients which constitute major percentage of IBD.

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INTRODUCTION

The prevalence rate of inflammatory bowel disease (IBD) is variable and depends upon geographical location and its maximum prevalence and incidence is seen in Europe (1). The predominant site of involvement in IBD are intestine but extraintestinal manifestations are seen in 21% to 41% (2) with significant contribution from skin involvement which can even mark the beginning of the disease. The initial belief of less prevalence of hair loss (3) was disproved by later studies (4) which showed thirty percent frequency of hair loss in two hundred and ten patients. The hair loss associated with IBD is of three varieties i.e. telogen effluvium, alopecia areata (AA) and primary cicatricial alopecia (PCA (5). The availability of association of alopecia and IBD is limited, despite the significant prevalence of IBD which hints at missing of this extra-intestinal manifestation by treating specialists. It is a common fact that everyone lays stress on typical manifestations of disease and atypical ones are missed i.e. tip of iceberg phenomenon. Our case series will become an eye opener for health care professionals and they will become more vigilant in dealing with IBD patients which require life-long follow up.

CASE SERIES

Our institute is tertiary care centre and thus we get plenty of referrals including suspected cases of IBD. Moreover, many patients who were being treated as haemorrhoids or fissure due to fresh red coloured blood loss per rectum, are diagnosed at our department, as IBD on colonoscopy and histopathological examination. Hence, there is good load of IBD patients who come for regular follow up for last many years, as there are no charges for any investigation and medicines are also available free of cost. We analysed 100 males and 100 females of confirmed IBD who were on regular follow up for many years for hair loss. Out of total pool of 200 patients, only two patients belonged to Crohn's disease in each group and rest all were of ulcerative colitis. Out of 100 males, 28 (28%) had hair loss whereas out of 100 females (40%) had hair loss during course of this disease. In males, strikingly 62% patients belonged to 20-40 yrs of age group, in comparison to females in whom 40% patients belonged to same age group. The percentage of patients above 50 yrs of age group was more in females when compared with males. On family screening, in males only 3% patients had positive family history, in contrast to 10% prevalence in females.

DISCUSSION

Extraintestinal manifestations of IBD are common in both ulcerative colitis and Crohn's disease with dermatological one constituting one-third of all of them. Erythema nodosum and pyoderma gangrenosum are the most frequently seen but there is no data on the development of alopecia as a cutaneous manifestation of IBD in most of studies **(6)**. Our case series of two hundred confirmed patients of IBD, with equal representation of males and females i.e. 100 each for removing

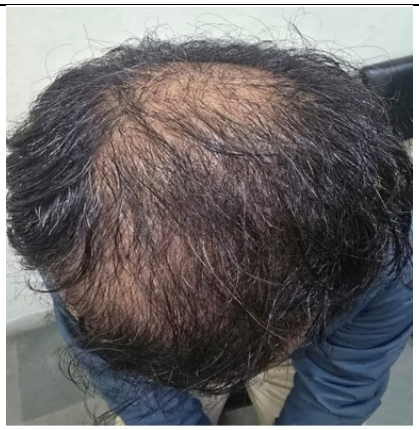

Figure 1. Loss of scalp hairs in Male

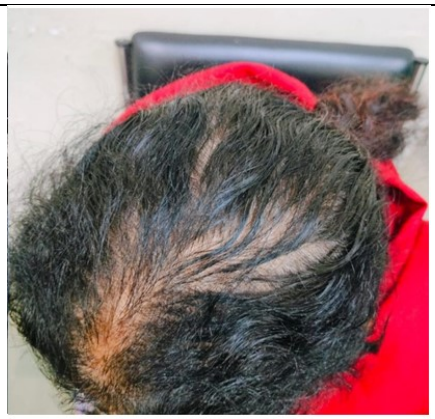

Figure 2. Loss of scalp hairs in Female

Table 1. Showing Distribution of Alopecia, Family History and typeof IBD in study group

Total Patient (200)	Alopecia Present	Alopecia Absent	Family History Positive	Family History Negative	Ulcerative Colitis	Crohn's Disease
Male (100)	28 (28%)	72 (72%)	3 (3%)	97 (97%)	98 (98%)	2 (2%)
Female (100)	40 (40%)	60 (60%)	10 (10%)	90 (90%)	98 (98%)	2 (2%)

Table 2. Showing Age distribution among males and females of IBD

Total Patient (200)	10-20 yrs age	21-30 yrs age	31-40 yrs age	41-50 yrs age	51-60 yrs age	61-70 yrs age	71-80 yrs age
Male (100)	3 (3%)	36 (36%)	26 (26%)	10 (10%)	15 (15%)	8 (8%)	2 (2%)
Female (100)	4 (4%)	10 (10%)	30 (30%)	24 (24%)	20 (20%)	6 (6%)	6 (6%)

Table 3. Showing Time of Diagnosis of Alopecia and relation to treatment in IBD

Total Patient With Alopecia	Alopecia before diagnosis of IBD	Alopecia at time of diagnosis of IBD	Alopecia after diagnosis of IBD	Alopecia improved with treatment	Alopecia deteriorated with treatment	Alopecia had no change with treatment
Male (28)	1 (3.57%)	20 (71.43%)	7 (25%)	21 (75%)	2 (7.14%)	5 (17.86%)
Female (40)	2 (5%)	28 (70%)	10 (25%)	32 (80%)	2 (5%)	6 (15%)

gender bias has clearly highlighted the need of health professionals to be extra vigilant for atypical extra- intestinal manifestations of IBD which can even mark the beginning of the basic disease. In our study, both groups of male and female had predominance of ulcerative colitis (98%) in comparison to minimal representation of Crohn's disease (2%). It is in alignment with other Indian studies which also highlight the major contribution of ulcerative colitis in IBD. In our pool of IBD patients, hair loss in females was significantly more in comparison to males i.e. 40% & 28% respectively. The prescence of IBD in other family members was also more common in female group then male i.e. 10% & 3% respectively. The other characteristic difference in two groups regarding hair loss, was regarding age group, more patients in older age group were seen in females whereas more males belonged to younger age group. Only one male had alopecia universalis, rest all males and 100% females had alopecia areata. In both the groups, alopecia developed at time of diagnosis of IBD in majority of patients, followed by after the diagnosis and minimal representation from patients who developed alopecia before the diagnosis of IBD. Another common thing in both the groups was improvement in hair loss in majority of patients with treatment. One study **(3)**, reviewed eleven case reports regarding association of alopecia areata (AA) with IBD and out of them majority had developed other autoimmune diseases. Occasionally, the activity of IBD is quiescent at the time of hair loss. The regrowth of hair after azathioprine prescription is reported only in two cases with CD (7,8). The beneficial effect of azathioprine in IBD with AA (7) led to improved hair growth. The AA and UC cases have a co-associated autoimmune condition such as vitiligo, autoimmune thyroiditis, myasthenia gravis, diabetes mellitus, allergic rhinitis, bronchial asthma and scleroderma (9-13). Patients with UC may develop alopecia areata (AA) simultaneously, before or after the onset of IBD as both of them have genetic susceptibility and their autoimmune pathogenic processes. In literature there are selected case reports of alopecia universalis or areata with ulcerative colitis (14-16).

CONFLICT OF INTEREST: The authors declare that there was no conflict of interest and no financial support was taken.

CONCLUSION

The treating gastroenterologist and physicians should be extra vigilant for extra-intestinal manifestation of IBD which include hair fall also, which has huge cosmetic value, especially in young patients which constitute major percentage of IBD. Our study highlights that Alopecia areata is most common variety seen in IBD and it occurs in significant proportion of patients, especially in females, belonging to older age group. In majority of IBD patients, alopecia is diagnosed at time of diagnosis of IBD and improves with treatment.

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