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ORIGINAL ARTICLE

Ulcerative Colitis Ocular Manifestations in Patients Admitted to a Peshawar Tertiary Care Hospital

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ABSTRACT

Objective: This study aimed to see how common ocular symptoms of ulcerative colitis were in patients hospitalized in a tertiary care hospital in Peshawar.

Methodology: At Hayatabad Medical Complex (HMC) and Khyber Teaching Hospital (KTH) Peshawar, 100 patients with ulcerative colitis were studied from January 2019 to December 2019 in cross-sectional research (UC). Following the inclusion and exclusion criteria application, all patients were included in the research. The eyes of each participant in the trial were thoroughly examined by a specialist Ophthalmologist. The results of the patients' visual examinations were documented. SPSS Vs. 10.0 was used to examine all of the data. For each of the variables in the research, we ran descriptive statistics.

Results: Male to female ratio was 1.43:1 with 59 (59%) male and 41 (41%) female patients. Most patients (43 percent) were 30-40 years old, with a mean age of 37 (5 S.D.).

Episcleritis was the most prevalent ocular ulcerative colitis symptom in this research. All individuals with ocular ulcerative colitis experienced a severe flare. 4/5 episcleritis individuals developed pan-colitis. Uveitis patient had pan-colitis.

Conclusion:

Patients with ulcerative colitis should have their eyes checked for any visual symptoms that might lead to blindness. If detected early enough, they may be treated immediately, which may help people like these prevent irreversible vision loss. All people with ulcerative colitis should have a complete visual examination at the time of diagnosis and frequently.

Keywords: Ocular manifestations, Ulcerative colitis

INTRODUCTION

UC is a chronic inflammatory disorder of the large intestine with an unknown cause[1, 2]. Different etiological variables, including genetic, environmental, and viral causes, have been proposed to have a causal role [1, 3-5]. It is distinguished by specific clinical, endoscopic, and histologic characteristics that aid in diagnosis. This illness may have extraintestinal symptoms affecting several organ systems of the body, including ocular abnormalities, which have existed for a long time [6-12]. Although the pathogenesis of ocular involvement in ulcerative colitis is unknown, several explanations have been offered. Some investigations have shown that antigen- antibody complexes may be responsible for ocular involvement by attacking gastrointestinal vessels [13, 14]. Sanford et colleagues. Hypothesized that altered macrophage-mediated autophagy might play a role in the etiology of UC ocular manifestations [15], while Lin et al. noted that a familial history of inflammatory bowel illness might also play a role [16]. This research aims to learn about the local incidence of ocular abnormalities in UC patients since no data on this topic is presently available in the area. It will assist us in steering these patients toward prompt treatment of these consequences and developing a screening program for people with UC to detect these ocular symptoms.

PATIENTS AND METHODS

This research was conducted from January to December 2019 at the Gastroenterology and Hepatology Department of HMC Peshawar and the Eye A Unit of KTH Peshawar. The hospital's research and ethical committee gave its approval. All participants gave their written informed permission.

After a thorough history, examination, and needed investigations, all adult patients of either sex with previously confirmed UC who had the condition for at least one year were included in the research using non- probability convenience sampling. All patients had their illness extent and severity assessed.

Patients with pre-existing ocular diseases such as glaucoma or uveitis, as well as systemic diseases such as diabetes, hypertension, and previous eye surgeries, abnormal position of eyelids and closure, abnormalities of the nasolacrimal drainage system, contact lens use, and patients who had used topical ocular medication in the previous two weeks, were all excluded from the study.

Patients were questioned, and data was gathered on their demographic profile, relevant history, the existence of concomitant medical diseases,and drugs used. Visual acuity (VA), pupillary examination, intraocular pressure measurement, anterior segment examination using slit-lamp biomicroscope, and posterior segment examination using Volk Superfield® and Volk 60D lens were performed on all patients. Tear breakup time (tBUT) and the Schirmer test were performed on patients suspected of having dry eye illness.

The information was entered into a custom constructed proforma. SPSS was used to analyze all of the data. We utilized descriptive statistics. Forage, the mean, and standard deviation were determined. Variable frequencies and percentages were also determined.

RESULTS

In this study, 100 individuals with UC were included. There were 59 (59%) male and 41 (41%) female patients in this group, with a male to female ratio of 1.43:1. (Fig No 1). Patients varied in age from 15 to 60 years old. The average age in this research was 37 years, with a standard deviation of 5.27 years. The majority of patients, 43 (43 percent), were between 30 and 40. (Table No 1).On eye examination, 6% of the patients developed ocular signs of ulcerative colitis, the most prevalent of which was episcleritis. (Table No 02 & 03).At the time of the ocular symptoms, all patients with ulcerative colitis were experiencing a serious acute flare (as defined by Truelove and Witts criteria). (Table 4) Pan-colitis affected 4 out of 5 episcleritis patients. A patient with acute anterior uveitis also developed pan-colitis. (Table 5)

Figure 1: Sex Wise Distribution Of Patients

Table 1: Age Wise Distribution Of Patients

Age	Frequency	Percent%
15 – 30 Years	27	27
31 – 40 Years	43	43
41 – 50 Years	25	25
51 – 60 Years	5	5

Table 2: Frequency Of Ocular Manifestations

Ocular Manifestations	Frequency
PRESESNT	6 (6 %)
ABSENT	96 (96 %)

Table 3: Pattern Of Ocular Examination Findings

Ocular Manifestation	Percentage
EPISCLERITIS	5 (5 %)
ACUTE ANTERIOR UVEITIS	1 (1 %)
OTHERS	0 (0 %)

Table 4: Severity Of Ulcerative Colitis

Truelove And Wits Criteria For Severity Of Ulcerative Colitis
Mild Less than 4 stools/day, without or with only small amounts of bloodNo fever No tachycardiaMild anemia ESR less than 30 mm/hour
Moderate in-between mild and severe
Severe More than 6 stools/day, having bloodFever more than 37.5°C Heart rate more than 90/min Anemia with Hemoglobin level less than 75% of normalESR more than 30 mm/hour

Table 5: Extent of Ulcerative Colitis in Patients Having Ocular Manifestations

OCULAR MANIFESTATION	NUMBER OF PATIENTS	EXTENT OF DISEASE
	4	Pan-colitis
Episcleritis	1	Left sided colitis
Acute Anterior Uveitis	1	Pan-colitis

DISCUSSION

According to the literature, around 3% to 6% of people with UC have ocular manifestations. Ocular symptoms in individuals with UC were seen in 6 percent of patients in our research, which is in line with data from earlier investigations.

Ocular symptoms were seen in all individuals with the current illness and an acute flare in our research. Ocular symptoms, notably episcleritis, occur more often during active illness than in remission, according to other investigations as well [14-17].

Ocular signs were present in 83.34 percent of the six patients in our research who had pan-colitis, whereas just one patient had splenic flexure colitis on the left side. Other studies have also shown a correlation between disease severity and the prevalence of visual manifestations, with individuals with more widespread illness more likely to have ocular symptoms [16, 21, 23].

Episcleritis is a condition in which the episclera is inflamed. The symptoms include abrupt redness and edema of the episclera in one or both eyes. Episcleritis was the most prevalent ocular symptom of UC in our research. Our investigation found episcleritis in five of six individuals or 83.34 percent of those with ocular symptoms. Additional studies reveal episcleritis to be the most prevalent ocular symptom of UC [16, 17]. All individuals with episcleritis had an acute severe flare of UC at the time of diagnosis, according to our research. Other studies have shown a link between acute ulcerative colitis flares and episcleritis, including [9, 14, 15, 17, 24, 28, 29].

The uveal tract, including the iris, ciliary body, and choroid, is inflamed by uveitis. Ocular complaints in patients with ulcerative colitis (UC) should be evaluated for signs of uveitis, which may lead to blindness. One of the findings from our research

Uveitis was seen in four of the six individuals with UC-related ocular symptoms. Although this patient was experiencing an intense flare of ulcerative colitis at the time, previous investigations have shown that uveitis may arise in UC patients without being linked to the intestinal disease activity [14, 25, 29].

CONCLUSION

In conclusion, ocular manifestations of UC should be searched for in all UC patients owing to the possibility of blindness. In these people, these symptoms might be symptomatic or asymptomatic. Their rapid detection may lead to effective and timely treatment, thereby preventing the tragic complication of vision loss in such people.

All UC patients should have a complete ocular examination at diagnosis. Similar ocular examinations should be performed for all such patients regularly to promptly identify any visual manifestation of UC.

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