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RESEARCH ARTICLE

CLINICAL PROFILE OF PATIENTS OF MEIBOMITIS - A HOSPITAL BASED STUDY, JHANSI

Dr. Jitendra Kumar¹ and Dr. Archie Gupta²

1. M.S. Ophthalmology, Professor and Head of the Department, Department of Ophthalmology, M.L.B. Medical College, Jhansi (UP).
2. Junior Resident, Department of Ophthalmology, M.L.B. Medical College, Jhansi (UP).

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Abstract

Purpose: To study the clinical profile of patients of Meibomitis presenting to the Outpatient Department of Ophthalmology at Maharani Laxmi Bai medical college, Jhansi in Uttar Pradesh

Methods: This was a prospective observational study that involved 100 patients with meibomitis complaining of pain, redness, dryness, swollen eyelids, itching, burning, grittiness and photophobia and presented to MLB Medical College, Jhansi. Slit lamp examination was done in all the patients.

Results: There were 58 males and 42 females and the age group taken was 30 to 80 years. 10 patients belonged to the age group of 30 to 40 years, out of which 6 were males and 4 were females. 20 patients belonged to age group of 41 to 50 years, out of which 11 were males and 9 were female. 37 patients belonged to the age group of 51 to 60 years, out of which 21 were males and 16 were females. 26 patients belonged to age group of 61 to 70 years, out of which 16 were males and 10 were females. 7 patients belonged to the age group of 71 to 80 years, out of which 4 were male and 3 were female. It is most common in males of 51 to 60 years age group. Most common presenting symptom was dryness seen in 42% patients, followed by itching in 26%, followed by grittiness in 16%, swollen eyelids in 4% patients and lastly photophobia in 9%

Conclusion: meibomitis or Posterior blepharitis (PB) is a common, chronic, and potentially sight-threatening eyelid and ocular surface disease and the disease tend to occur more commonly in males of age group between 51 to 60 years. Most common is chronic form followed by acute form. Maximum patients presented with meibomian seborrhoea and rest with meibomianitis.

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Introduction:-

Meibomitis or Posterior blepharitis is an inflammation of meibomian glands and is of two types 1) Acute and 2) Chronic forms.⁽¹¹⁾

Corresponding Author:- Dr. Jitendra Kumar

Address:- M.S. Ophthalmology, Professor and Head of the Department, Department of Ophthalmology, M.L.B. Medical College, Jhansi (UP).

Chronic meibomitis is a commonly occurring meibomian gland dysfunction, seen more commonly in middle-aged persons, especially those with acne rosacea and/or seborrheic dermatitis. Bacterial lipases are being blamed to play main role in the pathogenesis of chronic meibomitis.

Symptoms include chronic irritation, burning, itching, grittiness, dryness, pain, swollen eyelids and photophobia. Symptoms are characteristically worse in the morning.

Signs:

- White frothy (foam like) secretions are frequently seen on the eyelids margins and canthi. (meibomian seborrhea) .
- Opening of meibomian gland become prominent with thick secretions which can be expressed out by pressure on the lids giving toothpaste appearance .
- Meibomian gland orifices may also show capping With oil globules, pouting, recession, or plugging.
- Vertical yellowish streaks shining through conjunctiva can be seen on eversion of the lids. These represent the meibomian ducts filled with thick secretion.
- Hyperaemia and telangiectasia of posterior lid margin around the orifices of meibomian glands can be seen frequently.
- Oily and foamy tear film with accumulation of froth on the Lid margins or inner canthus.
- Secondary changes in the form of papillary conjunctivitis, and inferior corneal punctate epithelial erosions may be seen.

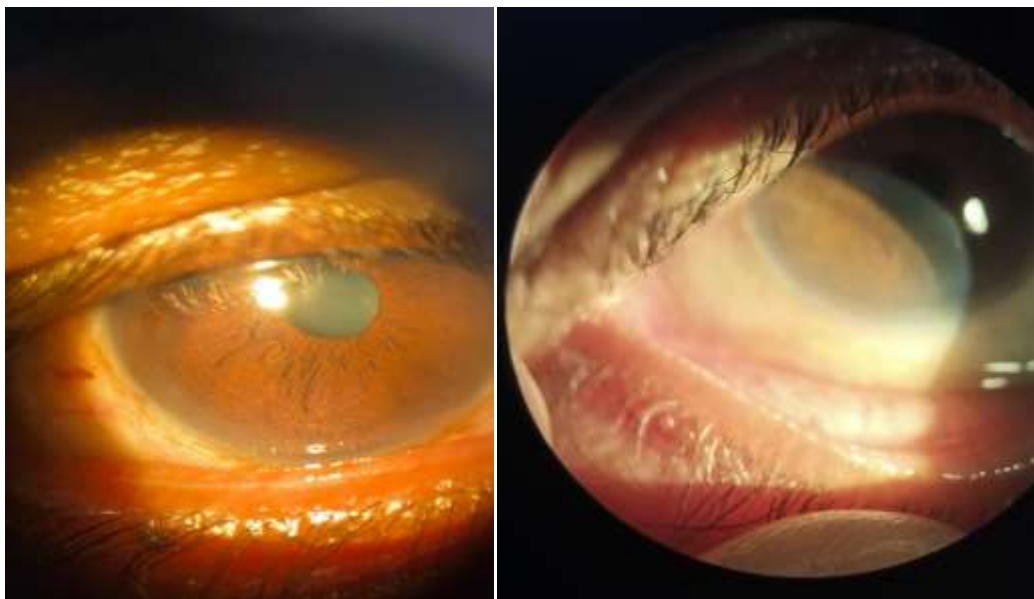
Acute meibomitis

Acute meibomitis occurs due to staphylococcal infection. It is characterized by painful swelling around the involved gland. Pressure on it results in expression of pus bead followed by serosanguinous discharge.

The last International MGD Workshop (2011) summarised various grading systems used to assess MGD, focusing on meibum expressibility and quality¹³. Hitherto, none has been adopted as a gold standard. Grading of PB can be performed by using the Compression Of The Eyelid.

(COTE) grading system

Grade	Nature of secretion on compression
1	Clear oil
2a	Easy egress of pus
2b	Slow and difficult egress of pus
3	Thick toothpaste like secretion (worm like)
4	Complete blockage of tarsal gland



Method And Material:-

This was a prospective observational study that involved 100 patients presenting with pain, redness, dryness, swollen eyelids, itching, burning, grittiness and photophobia. Patients were recruited from the OPD of MLB MEDICAL college, Jhansi, Uttar Pradesh and were followed from 1st February 2022- 30 June 2022. It was performed under the Helsinki Declaration of 1975, as revised in 2000. The necessary permission from the Ethical and Research Committee was obtained for the study.

Inclusion criteria

- All patients between the age group 30 years to 80 years who presented to the OPD of MLB medical College Jhansi with the complaint of pain, redness, dryness, swollen eyelids, itching, burning, grittiness and photophobia and the patients with meibomian glands capped with oil, or dilated, or visibly obstructed and the secretions of the glands were usually turbid and thicker than normal on slit lamp examination were included in the study.

Exclusion Criteria:

1. Patients outside the age group of 30 to 80 years
2. Patients with any corneal pathology
3. Patients with other conjunctival diseases
4. Patients with recent intraocular surgery
5. Patients with the history of trauma.
6. Patients with any other ocular pathology.
7. Mentally or physically unfit patients.

All patients were subjected to a detailed history taking, complete ophthalmic examination in diffuse and focal light and slit lamp examination .

Results:-

A total of 100 patients were studied. We included patients with a recent complaint of pain, redness, dryness, swollen eyelids, itching, burning, grittiness and photophobia .

There were 58 males and 42 females and the age group taken was 30-80 years .10 patients were in the age group of 30 to 40 years.20 patients in the age group of 41 to 50 years. 37 patients were in the age group of 51 to 60 years .26 patients were in the age group of 61 to 70 years. 7 were in the age group of 71-80 years.

All had features of meibomitis like meibomian glands capped with oil, or dilated, or visibly obstructed and the secretions of the glands were usually turbid and thicker than normal . 42 patients presented with dryness, 23 patients presented with itching, 16 patients presented with grittiness , 10 patients presented with swollen eyelids and 9 patients presented with photophobia.

Table 1:- Age distribution in meibomitis patients.

Age group (in years)	Number of patients
30-40	10
41-50	20
51-60	37
61-70	26
71-80	7

Table 2:- Gender distribution in patients of meibomitis.

Gender	Number of patients
Male	58
Female	42

Table 3:- Presentation in patients of meibomitis.

presentation	Number of patients
Dryness	42
Itching	23
grittiness	16

Swollen eyelids	10
photophobia	09

Discussion:-

Meibomitis or Posterior blepharitis is an inflammatory form of meibomian gland dysfunction, is strongly associated with ocular surface inflammation found predominately in middle age groups, most commonly in males in which chronic type is more common. It is characterized by the bilateral presence of pain, redness, dryness, swollen eyelids, itching, burning, gritty sensation and photophobia. Meibomitis or Posteriorblepharitis is usually considered to be a middle age group disease and it has several treatment options. McCulley et al.^[9] reported that primary meibomitis appears not to be a primarily bacterial involvement entity but represents a facet of generalized sebaceous gland dysfunction in association with seborrheic dermatitis or acne rosacea. The age group considered in our study was 30 to 80 years. The major symptom is ocular dryness. Minor symptoms include photophobia, burning, gritty sensation, pain, redness. Complications like tear film instability and inferior punctate keratitis can occur. G. Geerling, J. Tauber, C. Baudouin et al.^[12] concluded that lid hygiene is the mainstay of treatment of meibomian gland dysfunction. It includes warm compresses and mechanical massage of eyelids. Lid hygiene with topical and systemic treatment. Lid hygiene include warm compression with expression of accumulated secretions by repeated vertical massage of lids. Topical treatment include topical antibiotic in the form of eye ointments and antibiotic eye drops and topical steroids. Systemic treatments include antibiotic tablets like doxycycline and erythromycin.

Conclusion:-

Meibomitis or Posterior blepharitis (PB) is a common, chronic, and potentially sight-threatening eyelid and ocular surface disease and the disease tend to occur more commonly in male of age between 51 to 60 years. Most common is chronic form followed by acute form. Our study spans over a period of 5 months and is prospective in nature focusing on age and gender distribution, frequency of symptom presentation and the presence of various ocular signs. Slit lamp examination seems to be the modality of choice for examination of meibomitis patients.

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