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Clinical Profile of Patients of Posterior Blepharitis Presenting To the Tertiary Health Care Centre

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Abstract

Purpose - *to study the clinical profile of patients of posterior blepharitispresentingto the tertiary health care centre.*

Methods- *This was a prospective observational study that involved 100 eyes of 50 patients with posterior blepharitis complaining of pain, redness, dryness, swollen eyelids, itching, burning, gritty sensation and sensitivity to light and presented to MLB Medical College,Jhansi. Slit lamp examinationwas done in all the patients.*

Results-*There were 33 males and 17 females and the age group taken was 30 to 70 years.*

5 patients belonged to the age group of 30 to 40 years, out of which 3 were males and 2were females. 7 patients belonged to age group of 41 to 50 years, out of which 6 were males and 1 was female. 22 patients belonged to the age group of 51 to 60 years , out of which 14 were males and 8 were females. 16 patients belonged to age group of 61 to 70 years , out of which 11 were males and 5 were females .It is most common in males of 51 to 60 years age group. Most common presenting symptom was dryness seen in 54% patients, followed by itching in 26%, followed by gritty sensation in 16%, and lastly swollen eyelids in 4% patients.

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

Keywords: *Posterior blepharitis , photophobia, Meibomian gland dysfunction,meibomianseborrhorea and rmeibomianitis.*

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I. Introduction

In 1980, Korb and Henriquez[1] introduced the term ‘‘meibomian gland dysfunction’’ (MGD) to describe a condition of meibomian gland obstruction that reduces the delivery of meibum to the lid margin. This term has been generally adopted to describe a condition of meibomian gland abnormality that may, or may not, have inflammatory features, depending on its stage of development.[2,3] It should be noted that there has been a long-standing discussion as to whether or not MGD is an inflammatory disease.

Before 1980, and although similar to theterm ‘‘MGD’’ proposed by Korb and Henriquez,1 the concept of the disease state was that of a hypersecretorymeibum disorder that occurs in middle-aged subjects with obvious signs of inflammation, often associated with seborrheicblepharitis primarily caused by bacterial involvement (especially Staphylococcus aureus).[4–8]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. However, the current concept of MGD includes its initiation as a less obvious or nonobvious type of hyposecretory obstructive MGD, in which signs of inflammatory pathology may be absent.[10] In fact, the presence of obstructive MGD without inflammation has been reported and is well accepted,[1,10,11] and it is now considered as the most common cause of evaporative dry eye.[8,12–14]

At present, MGD is often clinically grouped with posterior blepharitis. However, the term ‘‘posterior blepharitis’’ and ‘‘MGD’’ are not interchangeable,[15] as ‘‘posterior blepharitis,’’ by definition, includes the presence of significant inflammation, and obvious inflammation does not occur in all variations of obstructive MGD.[10] Alternatively, obstructive MGD is a precursor of meibomitis. According to the report presented in 2011 by the MGD Workshop,[15] the term ‘‘meibomitis’’ (or ‘‘meibomianitis’’) describes a subset of disorders

of MGD associated with apparent diffuse or focal inflammation of the meibomian glands. However, these terms are generally insufficient, as inflammation is not always present in meibomianglands. Therefore, ‘‘meibomitis’’ should be defined as stagnation of the meibum, which often represents a form of ‘‘plugging,’’[9] as well as redness and swelling of the eyelid margin and palpebral conjunctiva, especially around the meibomian gland orifices.

Posterior blepharitis (PB) is a common, chronic, and potentially sight-threatening eyelid and ocular surface disease, characterised by inflammation and obstruction of the meibomian glands [16,17]. Symptoms include ocular surface discomfort typically worse in the mornings, as well as tearing, grittiness, photophobia, and blurred vision [18]. The signs of PB include red lid margins, increased visibility of the meibomian orifices, lash loss, prominent visible tarsal glands, and changes in tarsal gland expressibility.

Posterior blepheritis is of two types

1) Acute and 2) Chronic

While PB is frequently seen, its prevalence is difficult to determine because of the lack of a standardisedclassification of severity [19,20]. Moreover, it is clear that for many patients, management of PB can be prolonged, ineffective, and frustrating [21].

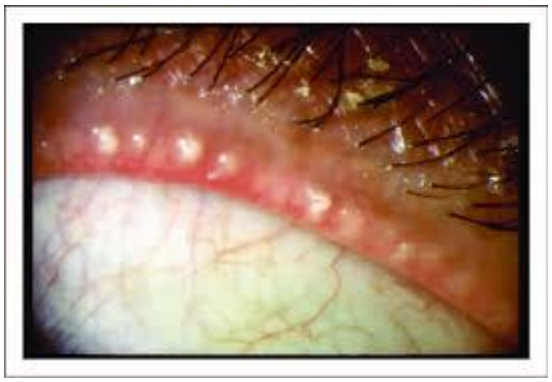
The last International MGD Workshop (2011) summarised various grading systems used to assess MGD, focusing on meibumexpressibility and quality [22]. Hitherto, none has been adopted as a gold standard.

Grading of PB can be performed by using the Compression Of The Eyelid (COTE) grading system .

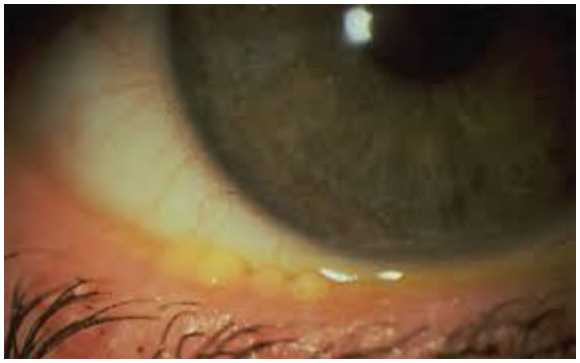
COTE Grading System

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;

MEIBOMIAN GLAND CAPPING



FOAMY DISCHARGE FROM MEIBOMIAN GLANDS



Method andmaterial

This was a prospective observational study that involved 100eyesof50patientspresenting withpain, redness, dryness, swollen eyelids, itching, burning, gritty sensation and sensitivity to light.

Patients were recruited from theOPD of MLB MEDICAL college, Jhansi ,Uttar Pradesh and were followed from 15th June 2019- 15 December 2019. 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 70 years who presented to the OPD of MLB medical College Jhansi with the complaint of pain, redness, dryness, swollen eyelids, itching, burning, gritty sensation and sensitivity to light 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 70 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 .

II. Results

A total of 100 eyes of 50 patients were studied. We included only eyes with a recent complaint of pain, redness, dryness, swollen eyelids, itching, burning, gritty sensation and sensitivity to light . Therewere33malesand17femalesand60%of thestudiedeyesweretherighteyes.5 patients wre in the age group of 30 to 40 years.7 patients in the age group of 41 to 50 years. 22 patients were in the age group of 51 to 60 years. 16 patients were in the age group of 61 to 70 years.

Alleyeshadoneormoreclinical features of posterior blepharitislikemeibomian glands capped with oil, or dilated, or visibly obstructed and the secretions of the glands were usually turbid and thicker than normal .

38 patients presented as meibomianseborrhorea and remaining 12 patients presented as meibomianitis.

27 patients presented with dryness, 13 patients presentsd with itching, 8 patients presented with gritty sensation and 2 patients presented with swollen eyelids.

Table1:Clinical profile of patients presenting with Posterior blepharitis.

Clinical Profile	no. of patients
• meibomianseborrhorea	38
• meibomianitis	12

Table2: Age distribution in posterior blepharitis population

Age group	no. of patients
• 30 to 40 years	05
• 41 to 50 years	07
• 51 to 60 years	22
• 61 to 70 years	16

Table3: Gender distribution in posterior blepharitis population

Gender	no. of patients
• Male	33
• Female	17

Table4: Symptoms in posterior blepharitis population

	Symptoms	no. of patients
•	Dryness	27
•	Itching	13
•	Gritty sensation	08
•	Swollen Eyelid	02

III. Discussion

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 sensitive to light. posteriorblepharitis is usually considered to be a middle age group disease and posterior blepharitis have 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 70 years.. The major symptom is ocular dryness. Minor symptoms include photophobia, burning, gritty sensation, pain, redness,. Clinically, there are two forms of posterior blepharitis :Meibomianseborrhoea and Meibomianitis. In Meibomianseborrheoa oil droplets may be seen at the meibomian gland openings which can be expressed out like foam and In Meibomintis patients present with a diffuse rounded posterior lid margins and thickening around meibomian gland openings and lid massage expresses out an inspissated , toothpaste like material. In mgd the quality of expressed lipid varies in appearance from a clear fluid to a cloudy fluid to a viscous fluid, containing particulate matter and a densely opaque ,inspissated , toothpaste like material as concluded by Korb and Blackie et al.[10] Most of the cases from our study showed a meibomianseborrhoea type presentation. Complications like tear film instability and inferior punctate keratitis can occur.G.Geerling,JTauber , C. Baudouin et al[21] concluded that lid hygiene is the mainstay of treatment of mgd.It includes warm compresses and mechanical massage of eyelids. Treatment includes lid hygine with topical and systemic treatment. Lid hygiene include warm comprssion with expression of acculated secretions by reapeated vertical massage of lids. Topical treatment include topical antibiotic in the form of eye oitments and antibiotic eye drops and topical steroids. Systemic treatments include antibiotic tablets like doxycycline and erythromycin.

IV. Conclusion

Posterior blepheritis(PB) is a common, chronic, and potentially sight-threatening eyelid and ocular surface diseaseand the disease tend to occure more commonly in male of age between 51 to 60years. Most common is chronic form followed by acute form. Our study spans over a period of 6 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 forexamination of Posterior blepheritis patients.

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