

Prevalence of Dry Eye in Post Menopausal Female- A Crosssectional Study.

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ABSTRACT

Objective:

Ocular surface disorder is a common malady in present scenario. Dry eye among post menopausal female is a common disorder to date. Commonly we come across meibomion gland dysfunction associated with post menopausal female as a common accompaniment of this condition. During this study we had tried to find out a positive co-relation between Dry Eye and Post menopausal female in central Indian.

Material & Method:

During this study 500 female of post menopausal age group were considered.

Result:

Overall percentage of dry eye noted was 34% in Post menopausal female.

Conclusion:

Common symptoms noted during this study were grittiness, burning sensation, dryness and redness. It was noted that 6% had severe dry eye, 11% had moderate and rest 17% had mild dry Eye.

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I. Introduction:-

- Dry Eye is a common symptomatic disorder prevalent in day to day practice.
- Dry Eye is a symptom complex and part and parcel of condition occurring due to deficiency and abnormality of tear film.
- It is defined as tear film disorder occurring due to deficiency of one or more component of tear film or excessive evaporation of tear film in prevailing circumstance.

It is not only due to tear film deficiency or insufficiency, but it is a condition in which disorder of ocular surface, lacrimal gland abnormalities, conjunctival mucous membrane dysfunction and meibomion gland dysfunction are present thereby requiring various medication in the course of time on even basis.

Today it has become a condition of paramount importance to acknowledge this malady and cure its impact in day to day life and improve physical quality of life by subjecting these patients to never diagnostic investigation in due course of time.

II. Objective:

- To find the prevalence of dry eye in post menopausal female.
- To find a positive correlation between symptoms and signs and age of post menopausal female.
- To find best possible means and measure to improve symptoms related to post menopausal female suffering from dry eye.
- To find out association of symptoms conditions commonly associated with dry eye symptoms in menopausal female.

METHOD:

- This study was conducted in N.S.C.B. Medical College & Hospital, Jabalpur & Sukh Sagar Medical College & Hospital, Jabalpur.
- Total of 500 post menopausal female were considered during the study.
- All the patients were screened for dry eye.
- Grading of dry eye was done according to DREWS classification. (Schirmer's test was employed as a basis of screening dry eye)

Exclusion Criteria:-

- (a) H/o ocular trauma.
- (b) H/o ocular surgery.
- (c) Patients of various ocular surface disorder.
- (d) Long time use of topical ocular medication.

Ocular Examination:

A detailed history about the symptoms was elicited from the patient and was written down on a predesigned format.

. Ocular symptoms:

- a. Redness of eye
- b. Foreign body sensation
- c. Burning sensation .
- d. Crusting on lashes.
- e. Feeling of dryness in eyes

Detail History was Taken Which Unclouded : The history of present illness was enquired in detail about the mode of onset of symptoms Along with it,s Senility and time spun.

3. Past History: A past history of general and ocular illness was noted to know whether the patient was chronologically ill and/ or suffered from any eye disease of significance.

STATISTICAL ANALYSIS:

Data was compiled using MS Excel and analysed using S7SS Software version 20
The data were duly checked for plagiarism

III. Result

Table - 1: Prevalence of dry eye

Total	Women with dry eye	Prevalence
500	170	34%

Table - 2 : Prevalence of various grades of dry eye

	No. of Cases	Prevalence
Mild	85	17%
Moderate	55	11%
Severe	30	6%

Table 3:- Grade of schirmer's test

Grade of schirmer's test	No. of Patients	Percentage
Mild Dry Eye (10± 1.66mm)	85	17%
Moderate Dry Eye (6.5± 1.24mm)	55	11%
Severe Dry Eye (3.5± 0.33mm)	30	6%

Table -4: Prevalence In Accordance with Age

Age Group	No. of Cases	Prevalence
<45	12	2.4%
45-49	14	2.8.%
50-54	20	4%
55-59	21	4.2%
60-64	26	5.2%
65-69	33	6.6%
>70	43	8.8%

Table-5: Symptoms of Dry Eye Prevalence

S.N	Symptoms	Prevalence
1.	Burning	62%
2.	Grittiness	60%
3.	Redness	57%
4.	Dryness	52%
5.	Crusting	40%

Table 6:- Central corneal thickness(CCT)

Central corneal thickness(CCT)	No. of Patients	Percentage
>560 µm	330	66%
<535 µm	170	34%

IV. Discussion

The study was conducted thoroughly and clearly to find out the prevalence of dry eye in post-menopausal women in present scenario During the study we found that 170 post-menopausal female had symptoms and sign of dry eye Table 1

During this study as of today we found that occurrence of, mild dry eye had maximal prevalence (17%) and that of severe dry eye was of least occurrence (6%). Table 2 and 3 . We have also found that the prevalence of dryness increased with increase in age group. Table 4

According to various authors dry eye is commonly present In post menopausal female. In one study in a total of 15625 subject prevalence of dry eye was 32% in various age group J S Titiyal et al. 2018 et al⁸. In one study prevalence of dry eye was 14.4% in 3,722 subjects aged 48 to 91 years and noted that the prevalence of the condition doubled after the age of 50. In another study of dry eye syndrome among US citizen it showed that the prevalence of DES ranged from 5.7% to 50% with various definitions of DED, and among women prevalence of dry eye increased with age ,in subject < 50 years old it was 14% and 22% among women aged ≥ 75 years old. Paul McCann et al BMJ 2021⁹.

In our study Burning, Grittiness, Redness, Dryness, Crusting was present in 62%,60%,57%,52%,40% respectively. Table 5

In a study of prevalence of dry eye among Chinese population , women were more likely to report frequent symptoms of dry eye (crude odds ratio,(OR)= 1.741; 95% confidence interval, (CI) =1.361–2.227).and crude OR = 2.4821,95% CI=1.968-3.131and crude OR= 2.4821,95%=(CI) 1.968-3.131 and crude (OR) =2.082,95%CI=1.597-2.714 respectively) In another study, TFBUT above and below each cut of value , 42.58%,77.62%,94.06% and 97.88% had TFBUT test of < 2 , <5,<10 and <15 second respectively among subject who were symptomatic. Pel-Yu Lin et al.⁷

Use of HRT is usually related to the occurrence of dry eye syndrome with low prevalence rate ambiguously prevalence Women who used estrogen alone had the highest prevalence (9.1%), and women who used a combination of estrogen plus progesterone/progestin had a prevalence that was intermediate between never users and users of estrogen alone (6.7%). Debra A. Schaumberg et al.⁴

The mean corneal thickness value is significantly decreased in postmenopausal women with dry eye. Table 6

In one study patients with dry eye syndrome significantly lower CCT compared to the control group (p<0.01) it,s mesn was 536.5 versus 561.3 respectively in Iraqi population in 280 subject .Noora Mauwafak Ali, Furkaan M Hamied, and Qasim K Farhood et al.²

In another study from Beaver Dam, 3703 subjects, prevalence of dry eye was found to be 14.4% in a cross-sectional study.

THUS overall prevalence of dry eye was found to be consistent with other studies of dry eye in post-menopausal age group. Our study also stressed that post – menopausal female shoud under go routine ophthalmic and gynecological check up

V. Conclusion

The following conclusions were drawn from our study:

1. Dry eye is a latent malady which can remain undiagnosed in present scenario.
2. Symptoms of dry eye usually remains prevalent in post menopausal female with out being treated.
3. Post menopausal female is usually besieged with dry eye
4. Our study also stressed that post – menopausal female shoud under go routine ophthalmic and gynecological check up

Conflict of Interest: None

Source of Support: Nil

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