



## **Prevalence of pseudoexfoliation in 100 Cases prepared for cataract surgery in Alkademiya Teaching Hospital**

**Dr. Abbas Saheb Mohammed Ali**

Alkademiya Teaching hospital, Baghdad, Iraq

### **Abstract**

**Purpose:** to study the prevalence of pseudo exfoliation syndrome (PXS) in 100 Iraqi patients with age related cataract prepared for surgery.

**Setting:** patients above 45yr visiting eye department in Al-Kademyia Teaching hospital in Baghdad – Iraq scheduled for cataract surgery.

**Materials and Method:** A total 100 patient prepared for cataract surgery. All eyes underwent complete eye examination before surgery and were evaluated for the signs of pseudoexfoliation material in the pupil, Iris and lens capsule on dilated slit lamp examination.

**Results:** the study found 15 of 100 eyes with pseudoexfoliation with males are more commonly affected than females (66.6 and 33.3 respectively) the mean age of patients with PXS was 67.3 yrs. while it was 62.5 in non-PXS patients. The prevalence of pseudoexfoliation syndrome increased with age (in the age group of 45-55 that increase to in age group of more than 75yr old).

**Conclusion:** The pilot study confirms that pseudoexfoliation was common in patients undergoing cataract surgery in this area of Baghdad with increased detection rate with age, the study also shows the prevalence of on ocular disease that is associated with systemic & ocular complication.

**Keywords:** ocular, disease, system

### **1. Introduction**

Pseudoexfoliation syndrome is a common but easily missed syndrome. The term was originally chosen to distinguish it from “true” exfoliation syndrome in which heat or infrared radiation caused damage to lens capsule (e.g. inglass blowers) [1]. Pseudoexfoliation was first described by Lindberg in 1917 in a Finnish population [2]. the clinical diagnosis can be made by the presence of typical pseudoexfoliation material on the anterior capsule surface of the lens and/or pupil margin. Other features include endothelial pigmentation. Loss of pupillary ruff iris sphincters tranillumination defect sampleose line and pigment deposition in the trabecular meshwork [3], poor mydriasis, iridodensis, phaodensis with risk of zonulo dialysis during cataract surgery [1] corneal endothelopathy, higher rate of vitreous loss, capsular phimosis and opacification has been repeated after cataract surgery [1]. Glaucoma occur in up to 25% of patient with pseudoexfoliation (i.e. up to 10-fold ↑ risk). Although the disease is present similarly to POAG. The disease course is more sever with poor response to treatment & more frequency need for glaucoma surgery. Pseudoexfoliation prevalence has been subjected to many studies with a large difference in results and this is due to difference in the method of study or survey Geographical area, ethnicity and size of the sample in the study. This is retrospective study that examined the prevalence of PXS in patients prepared for cataract surgery in ophthalmology department in Alkademiya Teaching hospital in Baghdad. Patient’s with cataract only were chosen glaucoma cases were not included in the study to study the cataract aspect of the syndrome.

### **Methods**

All the patients who included in the study were visiting the Ophthalmology department in Alkademiya Teaching hospital between April 2016 to December 2018. Inclusion criteria included patients that were above the age of 45 years with age related cataract and prepared for cataract surgery without previous ocular surgery in the examined eye, secondary cataract cases were excluded. All eyes were examined by slit lamp before and after mydriasis using 1% tropicamide eye drop. The prevalence of pseudoexfoliation was confirmed by the presence of the typically fluffy, white granular material at the pupillary margin, anterior capsular lens surface and surface of the Iris percentage and their upper and lower confidence intervals were calculated. There was no comment recorded on the fellow eye patients with diabetes, traumatic cataract and less than 45 years were excluded.

**Table 1:** Age distribution of the studied population

<b>Age distribution of the studied population</b>		
Age yr.	No. of subject	Percentage
46-55	11	11%
56-65	30	30%
66-75	42	42%
Above 75	17	17%
Total	100	

### **Result**

The mean age patients with pseudoexfoliation was found to be 67.3 years and 62.5 years in the non- pseudoexfoliation patients. The prevalence of pseudoexfoliation syndrome increased with age, the study demonstrate that the rate was

9% in the age group 46-55 years and increase up to 23.5% in the age group above 75 years. There were 15 eyes out of 100 eyes (15%) with pseudoexfoliation syndrome included in the study. The study shows the males (10 patients 66.6%) were affected more than females (5 patients 33.3%).

**Table 2:** Prevalence of pseudoexfoliation according to age group

Prevalence of pseudoexfoliation according to age group			
Age	Number of PXS	Total patients	percentage
46-55	1	11	9%
56-65	5	30	16.6%
66-75	5	42	11.9%
Above 75	4	17	23.5%
Total	15	100	15

## Discussion

My study reports on the point prevalence of pseudoexfoliation syndrome in 100 patients prepared for cataract surgery in eye department in Alkademiya Teaching hospital. Although epidemiological data on the prevalence of PXS are best obtained from population-based studies, useful information on the prevalence rate of PXS in this study population was 15% which is equal to lower or higher than many reported studies. [Table 3]

**Table 3:** The location.

Location	Number of patients	Prevalence	Reference
Estonia	306	35.4	4
Finland	351	30.8	5
Greece	509	27.9	6
Turkey	1480	16.4	7
Yemen	782	20	8

These variations could be explained by differences in the techniques of assessment, size of sample, ethnicity. Globally, the reported prevalence rate of pseudoexfoliation syndrome in similar studies show extensive variation. Estonia 35.4%<sup>3</sup>, Finland 30.8%, Greece 28%, Turkey 16.4 and Yemen 33.9%. Pseudoexfoliation is more common in males (10) than in females (5) which is differ from other texts which may be due to the relatively small size of the sample. The age of the patients with PXS in this study was noted to be 45 and above and increased with age and this result agree with the previous that pseudoexfoliation syndrome increase with advancing age.

## Conclusion

The prevalence rate of pseudoexfoliation syndrome among this sample in this area of Baghdad attending Alkademiya Teaching hospital for age related cataract surgery was 15% population-based study should be performed to plan and manage its complication (cataract and Glaucoma).

## References

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