

Exfoliation Syndrome in Northern Nigeria

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Introduction: Exfoliation syndrome (XFS) is an age related, generalized disorder of the extracellular matrix characterized by production and progressive accumulation of a fibrillar material in tissues throughout the anterior segment and also in the connective tissue portions of various visceral organs. It is the most common recognizable cause of Open angle glaucoma (OAG) and Angle closure glaucoma (ACG). Exfoliation glaucoma (XFG) is often associated with high IOP, greater visual field loss, wider IOP variations and more pronounced optic nerve damage compared to Primary open angle glaucoma (POAG). Cataract surgery in XFS is associated with increase in complications such as lens subluxation, zonular dialyses, posterior capsular rupture, vitreous loss, subluxated IOL, uveitis, hemorrhage, formation of posterior synechiae and corneal endothelial decompensation. The aim of this study was to estimate the frequency of exfoliation syndrome and its association with ocular diseases in Northern Nigeria

Methods: Consecutive patients who presented to the out-patient department of ECWA Eye Hospital Kano from February 2015 to May 2015 were included in the study. Each patient had a complete ophthalmic examination. The anterior segment examination included tonometry, gonioscopy and detailed slit-lamp examination for presence or absence of exfoliation material, inflammatory cells and other abnormal findings. Patients with exfoliation material on the anterior lens surface and/or pupillary margin in either or both eyes were considered to have exfoliation syndrome (XFS). Statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS) version 16.0.

Results: A total of 620 patients living in Northern Nigeria from the six geopolitical zones were examined. A significant proportion of them (34.5%) were indigenous Hausas. There was a male preponderance of 56.6% while the mean age at presentation for examination in all age groups was 55.7±13.7 years. There were 9 patients with XFS; the frequency was 1.5%, with most of the patients being 70-80 years old. Among patients who were ≥ 50 years the frequency was 2.5%. Patients with XFS had a higher mean age of 68±4.9 years. The frequency of XFS among glaucoma patients was 4.4% while among cataract patients was 3.7%. Apart from cataract or glaucoma, no other associated ocular disease was found in the patients with XFS. The occupation of the patients is presented in Figure 1.

Discussion: The frequency of XFS from our study is 1.5%, which is lower than the 2.7% reported in an earlier study in Southern Nigeria. The difference may be as a result of the study design being hospital based and cannot give true prevalence of the disease, as well as the wide variation in the

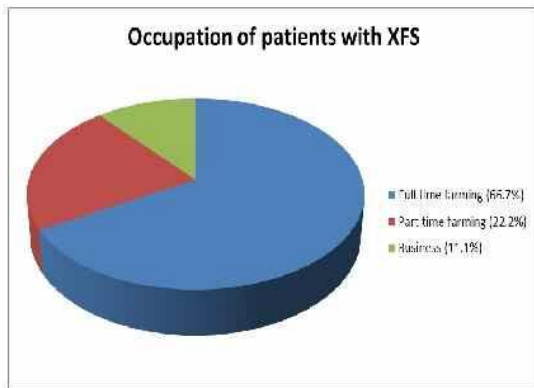


Fig. 1: Occupation of patients with Exfoliation syndrome

sample size of the studies and the age range of individuals analyzed. The youngest age among XFS patients in this study was 60 years and the frequency increased with increasing age. In our study, the frequency of XFS in patients ≥ 40 years was 1.7% increasing to 4.7% in ≥ 60 years. In this study, XFS was present in 4.4% of the patients with glaucoma. This is slightly higher compared to 3.6% from the Southern Nigeria.

Conclusion: This study shows that XFS exist in Northern Nigeria as was found in the southern part of the country. The majority of patients with XFS in this study were engaged in outdoor activities. Adequate mydriasis and slit lamp bio-microscopy are essential in assessing the peripheral zone of the lens for exfoliation material.

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