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Diabetic Retinopathy Prevalence in Urban Sindh

A. LODHI⁺⁺, F. PANHWAR^{****}, K. ANWAR^{*}, R. SALEEM^{**}, R. IRFAN^{*****}, A. QURESHI^{***}

Institute of Ophthalmology, Liaquat University of Medical Health Sciences

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Objective: The Objective of the work was assessment of the existence of diabetes induced-retinopathy among an urban Sindh in different age groups.

Method: Population-based study conducted in Sindh. Two hundred fifty-one subjects reside in Sindh, were specify. Persons are in different age groups were screened for diabetes.

Results: Prevalence of diabetes induced-retinopathy among the population was 21%. As a result male count was more comparatively to the female (15% vs. 6%).

Conclusion: The existence of diabetes-induced-retinopathy was 21% those person who lived in city areas with diabetes mellitus belonged to Sindh. Diabetes-induced-retinopathy is dependent totally on the duration of the prevailing illness (diabetes).

Keywords: Diabetes, Retinopathy, Urban, Sindh.

1. INTRODUCTION

Diabetes-induced-retinopathy has proven to be the foremost reason of sight destruction among the worldwide in youth (Shaw, *et al.*, 2000). (Taylor and Keeffe, 2001) It is expected that diabetes-induced-retinopathy increases in excess of seventy five percentage of diabetics over two decades of detection of diabetes (Linda *et al.*, 2003). (Ajlouni, *et al.*, 2000) Many works present important evidence on the incidence of diabetes-induced-retinopathy in worldwide which is helpful to distinguish the subgroups at peril plus for the procedure of strategy for community healthiness. (Aiello *et al.*, 1998). Though, there is a insufficient information on the incidences of eye diseases in diabetes-related in developing countries like Pakistan, that in detail has the prevalent figure of diabetic persons in the world (Tabbara and Ross-Dogan 1986). While only some studies was carry out about incidence of diabetes-induced-retinopathy in cities and villages of Pakistan, similar works was some confines: a few was clinic-based (Al Bdour *et al.*, 2002). described in previous studies (Salem and Ajlouni 1999) (Al-Till, *et al.*, 2005) that was inadequate by conditions about diabetic issues with concerned in tiny samples. The Objective of current work was assess the existence of diabetes-induced-retinopathy among citizenry of cities in different age groups.

2. METHODS

A population-based study carried at Institute of Ophthalmology of Liaquat University of Medical and Health Sciences (LUMHS) Hyderabad from March

2015 up to December 2015. Two hundred fifty-one (251) subjects reside in Sindh, were specify. Persons are in different age groups were screened for diabetes. All samples were evaluated on the basis of two photographs i.e. color and fundus. The data were expressed descriptively with the help of Microsoft Excel.

Table: 1 Occurrence of Diabetic Induced Retinopathy in City Areas of Sindh

Variables	Total (251)	Diabetic Retinopathy Prevalence (%)	
Age			
25	14	10	14%
30-40	94	70	37%
40-50	77	38	19%
50-60	66	32	30%
Gender			
Male	150	85	15%
Female	101	28	6%
Treatment			
Diet	140	10	7%
Insulin	111	52	46%
Hypertension			
Yes	147	88	18%
No	104	64	8%
CAD			
Yes	95	23	7%
No	156	65	27%
Smoking			
Yes	76	60	19%
No	175	42	17%

⁺⁺Correspondence Author: Arshad Lodhi Email: sciencepk62@gmail.com

^{*}Isra University Hyderabad

^{**}Department of Pharmacy, SMBBMU, Larkana

^{***}Department of Pharmaceutics, Faculty of Pharmacy, University of Sindh Jamshoro

^{****}Department of Pharmacology, Faculty of Pharmacy, University of Sindh Jamshoro

^{*****}Peoples University of Medical & Health Sciences for Women Nawabshah.

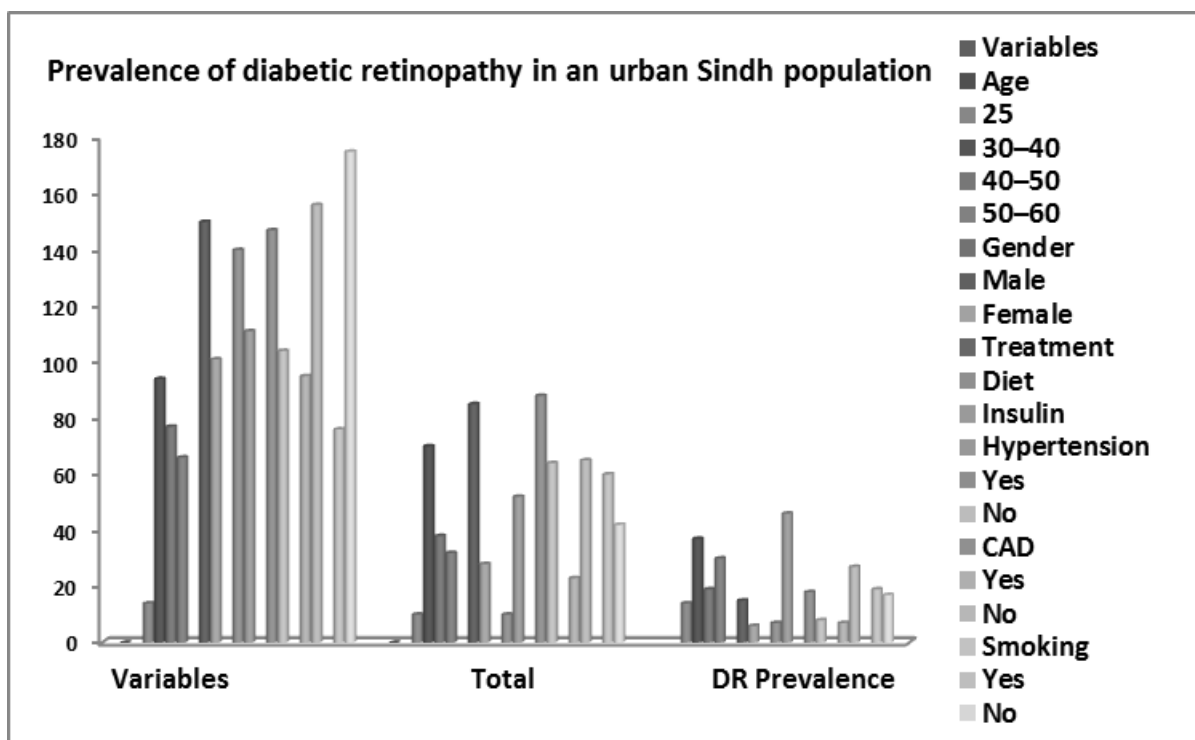


Fig. 1 Occurrence of diabetic induced retinopathy in City Areas of Sindh

3. RESULTS

(Table 1 and Fig. 1) measure up to the diabetes-induced-retinopathy prevalence among different ages. Significantly more existence of diabetes-induced-retinopathy was in male comparatively to female and between diabetic with hypertension and with coronary artery disease. No difference diabetic retinopathy among smokers and nonsmokers.

4. DISCUSSION

Diabetes-induced-retinopathy is a micro vascular diabetic complication, and numerous studies have been observed that increased level of plasma glucose is a significant aspect for diabetic retinopathy (International Council of Ophthalmology. 2006) (Klein *et al.*, 1984). There are a few causes that partially clarify the history of impaired glucose regulation, diabetes is a prevailing cause for diabetic retinopathy, and precedence of impaired glucose regulation, diabetes is a greatly brawny risk factor than glycosylated hemoglobin A1C or plasma glucose levels. Initially, Diabetes mellitus type 2 is frequently not detected during complications become visible. (Sparrow *et al.*, 1993) reported that the frequency of diabetic retinopathy in patients among lately categorized was 18% among Hong Kong, China. (Kayani *et al.*, 2003) specified incidence for diabetic retinopathy in population of China having pre-diabetes and recently was 2.49% and 4.86%, respectively. In another study examination demonstrate that about

70% of patients with impaired glucose regulation, diabetes may to finish progression to diabetes. Constant by the beyond study, the present study shows the existence of diabetes-induced-retinopathy among different grouping. Moreover, diabetes-induced-retinopathy was significantly higher among males as compared with females. Between diabetic and hypertension, the chances of CAD (coronary artery disease) prevail most among diabetics. No difference diabetic retinopathy among smokers and nonsmokers.

5. CONCLUSION

It was concluded that the diabetes-induced-retinopathy was 21% among city-residents with diabetes at Sindh. Moreover period of diabetes is the powerful interpreter for diabetic retinopathy. This emphasizes for regular retinal screening of diabetic persons to identify diabetic retinopathy in the before time period.

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