

The Commonest Causes Of Blindness Over 30 Years Old Patient in Makkah Eye Complex in Khartoum

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Abstract: The commonest causes of blindness are cataract, glaucoma, retinal, and infectious diseases. Which are distributed worldwide Blindness has high prevalence in developing countries like Sudan compare with developed one. But this percentage can decrease as a result of treatable or preventable than in the counterparts in the developed world.

Objective: the general objective is to assess the commonest causes of blindness in Makah eye complex and hospitals in Khartoum state in Sudan.

Methodology: cross sectional study hospital based applied cluster sampling design. Targeting 246 patient in Makah eye complex and hospitals in July (5 -12). Data collected from the hospital record and by questionnaires and analyzed using Statistical Package for Social Science version 15.

Results: 49.4% of blindness is due to cataract 45% of blind live in Khartoum; 93% of them had low socioeconomic state, 10% at 70 years old and the disability among binocular blindness is higher than monocular one.

Conclusion: the commonest cause of blindness is cataract which affects their social life and socioeconomic state

Recommendation: conduct camps to the rural area to treat and diagnosis the eyes disease.

Keywords: Blindness Are Cataract, Glaucoma, Retinal, And Infectious Diseases.

List of abbreviation:

DM: Diabetes Mellitus	BIF: AL Bazaar International Foundation
VQoL: Vision-Specific Quality of Life	CF: Count Figure
&: And	HM: Hand movement
WHO: World Health Organization	PL: Perception of Light
ICD: International Classification Of Diseases	Npl: No Perception of Light
	HTN: Hypertension

1. INTRODUCTION

1.1 Background:

Regarding to the world health organization (WHO), they defined Blindness clinically as lacking of visual perception, due to acquired or congenital disease (1). The term blindness classified in to monocular or binocular blindness. If the visual impairment in the best eye is less than 3/60, and visual field less than 5 degrees, this called binocular blindness. And if it is less than 3/60 ,and visual filed less than 5 degree in one eye but the other one has normal, mild, moderate or severe visual impairment we called it monocular blindness .(1)

To determine which people may need special assistance, due to their visual disabilities, various governmental jurisdictions have formulated more complex definitions, referred to as legal blindness. legal blindness is defined as :the visual acuity is (6/60) or less in the better eye with the best possible correction (2).

According to the ICD, there are four levels of visual function. Normal vision, moderate visual impairment, severe visual impairment & blindness. Moderate visual impairment combined with severe visual impairment are grouped under the term "low vision": low vision taken with blindness to represents all visual impairment.(3)

In terms of the worldwide prevalence of blindness, its present a much greater scale in developing world countries than in developed one (4). According to the number of cases, most cases were due to cataract, glaucoma, retinal detachment & corneal opacity .infection diseases like leprosy, trachoma & onchocerciasis distributed in poor sanitation area (5) .

In Sudan the epidemic due to infectious disease in the rural area, like Abu Hamad. But its eradicated as a result of public health action. One of the most government eradicate the blindness al bazaar international foundation (BIF).which Its slogan (to the world of healthy seeing & exploration) .the BIF established in Saudi Arabia in 1989 the activities cover more than 48 countries in Asia and Africa the foundation has 17 hospitals in 7 countries (Afghanistan, Bangladesh, Niger, Yemen, Pakistan, Sudan) in 1993 the BIF started its activity in Sudan by coundacting20 free eye camps per year by screening 5000 patient and 500 surgery. In 1995 BIF establish an eye hospital in Khartoum and other 6 eye care services. In graduated by president Omer Hassan Ahmed al basher in sep 2003 as one of the grand referral and well equipped eye in Sudan. The Mission of BIF: blindness control program in the world. And it's Objective: combat the avoidable disease of blindness, provide treatment for poor needy people in remote area, and implement the program of scientific research and development of ophthalmology, teaching, rehabilitation, training and development in ophthalmic medical cadre . The Means by conducting free eye camps, Establishing eye hospital and collage, And Other activity is school eye health program, domesticate ophthalmic service in Sudan, and sub specialty clinic, building capacity by making seminars conference and work shops.

The beneficial: following the donation to support poor patient of treatment \$6238719.4 for 429643 patients6.

1.2 Problem Statement:

37million people are blind .1-2 million people annually get blind, 80% of cases of blindness are avoidable .90% of blind people live in low income country. The number of blind people worldwide will be more than 75 million by the year 2020 if major intervention is no taken 7.

In Sudan by 2003 the incidence of blindness was 1percent and is progressively increased till 2012 numbers of government and doctors make campaign for eradicate this phenomena.

However the exact numbers and percentages are less important than the fact that the vast majority of blind people are unemployed. In low-income countries only about 2 percent of children receive education and of these no more than 5 percent will ever have gainful employment. In rural areas unemployment rates approach 100%. Even in industrialized countries unemployment rates from 50 to 75 % are report 8. In related to psychic effect Studies conducted largely in the United States found that up to a third of people with vision impairment report clinically have significant depressive symptoms9 .on other hand studies conducted in the middle east report that 60.2 of blind women was emotional distress10 due to mishandling by her relatives like (Beating,kickingand pushingandlighting a cigarettein her body,threat, such as the threat of physical harm or expelled from her home and prevent her to rising her children ,Use of obscene words and insult) and studies in Canada report that 40% of blind women received 11.

1.3 Justification:

Three-quarters of all blindness can be prevented or treated if diagnosed earlier and controlled the cause. Blind patient have the right to do normal activity and the chances of going to school, obtaining work and enjoining family and social life12 without begging others to help them which effect on their psychology and behavior. Unfortunately the majority of blind people find that their situation negatively affects their chances to be effective the in community. Despite the fact that most of Muslim scholars, Poets and Authors were blindness and Islam eradicate the disability although in blindness. My research will.

2. OBJECTIVES

2.1: General objective:

To assess the commonest causes of blindness over 30 years old patient in Makah eye complex & hospital in Khartoum.

2.2: Specific objective:

- 1- To determine certain blindness risk indicators (age-gender -socioeconomic stat –geographical distribution) of visual impairment over 30 years old
- 2- To determined the disability and social life related to blind people
- 3- To assess the psychiatric effect on blind patient
- 4- To evaluate the knowledge of patient about the future program in 2020 to eradicate the blindness

3. LITERATURE REVIEW

The author use the eye ball mechanism and use the internet, some magazine and sort of books to know about the previous researches conducted;

In study of Causes of Blindness and Visual Impairment in Pakistan (Dineen et al, 2007) the commonest avoidable causes were Avoidable Causes Cataract 51.5%, Corneal opacity 11.8%, Uncorrected aphakia 8.6%, Glaucoma 7.1%, Posterior capsular opacification 3.6%, Refractive error 2.7%, Diabetic retinopathy 0.2%, Total avoidable causes 85.4% and total Unavoidable Causes 14.6%. In the same study In order to reduce the economic costs associated with blindness and improve the quality of life, prevention is the best strategy. Awareness programs should be arranged for the general population regarding eye care and diseases in general and blindness in particularly

The families of the blind should be provided social support, training and guidance so that they can take good care of the social and emotional needs of their blind family member as well as themselves.

Reactions to blindness: an exploratory study of adults with recent loss of sight. Arch Gen Psychiatry. 1970 reported that blindness has great deal of emotional and Psychological consequences. There are three types of Responses to sight loss; acceptance, denial and depression/anxiety. Acceptance is the best response to any disability and denial serves as a defense mechanism which may actually prove helpful in coming to terms with blindness. Depression as a

Physiological reaction may be encouraged and may even have a cathartic effect but it is also more likely to assume pathological characteristics.

Blindness, Poverty, and Development Executive Committee, December 2004, Cape Town, South Africa Poverty is both a cause and a consequence of blindness. Poverty and blindness reinforce each other, contributing to increased vulnerability and exclusion. The majority of blind people find that their situation negatively affects their chances of going to school, obtaining work, and enjoying family and social life. Problematic attitudes in society and lack of opportunity are the determining factors, and not lack of ability.

In the study of the Impact of Vision Impairment on Vision-Specific Quality of Life in Germany using a psychometrically valid German IVI, even mild vision impairment was independently associated with poor VRQoL. These findings reinforce the importance of early preventative and rehabilitative efforts to prevent longitudinal

Deterioration in vision loss. The detrimental impact of impaired vision on vision-related quality of life (VRQoL) has been well documented with Several psychometric instruments. 1–3 Vision impairment affects Daily functioning, falls, mobility, and emotional wellbeing. There were more female the main cause of vision loss was age-related macular degeneration Asch analysis demonstrated the validity of the German IVI to assess VRQoL through two subscales: vision-specific functioning and emotional well-being. In adjusted multivariate analysis Models, those with mild or moderate/severe vision impairment Reported significantly poorer vision-specific functioning In the study of changing of definition of blindness .reported that the categorization of visual impairment currently in use worldwide is based on The ICD10th Revision 1st and 2nd edition. This is derived from a WHO Study Group on the Prevention of Blindness that was convened in 1972 to provide a Standardized definition. This was to facilitate the collection of population based Data on prevalence of vision impairment and blindness in a uniform and Comparable manner. At the time of this meeting four

major causes of vision loss Had been identified. These were Trachoma, Onchocerciasis, Xerophthalmitis and Cataract. There was no consideration of refractive error as an underlying cause of visual impairment, if not blindness.

Visual impairment and blindness in 12octobure2011 to improve public heath policy.. Elimination of river blindness in 1june 2008 global effort to eliminate onchocerciasis (river blindness) is driven by close collaboration between research and public health agencies Onchocerciasis is also called river blindness because the black fly which transmits the disease breeds in rivers; it often blinds people, as well as causing debilitating skin disease. Over 37 million people are infected, often living in poor, rural African communities. This new study in three areas in Mali and Senegal where onchocerciasis was endemic has now provided the first evidence of the feasibility of onchocerciasis elimination with ivermectin in some endemic areas in Africa. Previously, it was thought that elimination of onchocerciasis was only possible in the limited, isolated areas in the Americas where the disease is endemic. However, the studies showed that after 15 to 17 years of six-monthly or annual treatments, only a few infections remained in the human population. Transmission levels were below predicted thresholds for elimination, so treatment was subsequently stopped in test areas and follow-up evaluations after 1.5 to 2 years showed that no further infections or transmission occurred.

Prevention from trachomonustrachialis in mekken southern of Sudan in30may2002

Association between sadness (depression) and cataract and the treatment of cataract which discovered from holy Quran in 1991

This research discovered from قال تعالى (اذهبوا بقميصي هذا فالقوه على وجه أبي يأتي بصيرا واتوني بأهلكم أجمعين) (وابيضت عيناه من الحزن) (وابيضت عيناه من الحزن) that the treatment of blindness was found in the sweating which contain the (gulaldine)in its component this material has effective treatment in cataract the research perform in 250 volunteer by put eye drop 2time per day and after two week the cataract is completely treatment .In the same research discovered that is the relationship between sadness and cataract in the state of sadness the body secret adrenaline which antagonist for insulin within low insulin the blood sugar increase and with longitudinal sadness may perform diabetes mellitus that is cause of blindness.

4. RESEARCH METHODOLOGY

4.1 Study design: Descriptive cross sectional hospital based study.

4.2 Study area: Makkah eye complex and hospitals in Riyadh in Khartoum specific for eye diseases. The hospital Composed of 16 sub specialty clinic, Received daily 1050 different cases & 400 surgical procedures done daily.

4.3 Study population: one eye or both eyes blind patient in Makkah hospital above 30years old. Inclusive: low vision and blind patient with visual acuity (3/60, 2/60, 1/60, CF, HM, PL, NPL) and visual field<5 degree in one eye or two eyes

Exclusive: people with normal vision and visual acuity >3/60

4.4 sample size: $N = \frac{Z^2 p^2 q}{d^2} N = 125$

$Z = 1.96$ at 95% confidence interval $Q = 1-p = 1-.01 = .99$ $d = \text{level of error} = .05$ $P = \text{prevalence} = .01(1\%)$ (12)

Prevalence is currently increased and no near estimation from 2003 I used 246 cases to try to detect accuracy.

4.5 Sampling: 156 record & 90 cluster sampling

According to the system of the hospital which is lack to one general unit to receive all patient admitted to hospital .the author was take 2 sub groups. From record at the end of the day, to detect all cases form all sub specialty clinic, to assess the commonest causes of blindness, & 90 questionnaire distributed to randomly to 4cluster clinic to assess the life quality of blind people

Data collection:

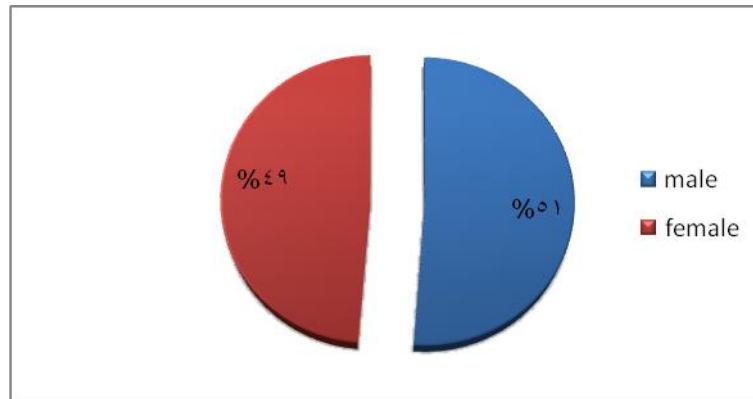
From the hospital record & through structured questionnaire that contain 25 items, with four active response Options using Likert scaling, ranging from *not at all* to *a lot*. To assess 3 sub scales (information, mobility and independence, and emotional effect).

Regarding to standard of statistical centre in Sudan determined if the income is 500 pound or less is low income and if it's from 500 to million pound is moderate and if above million is high.

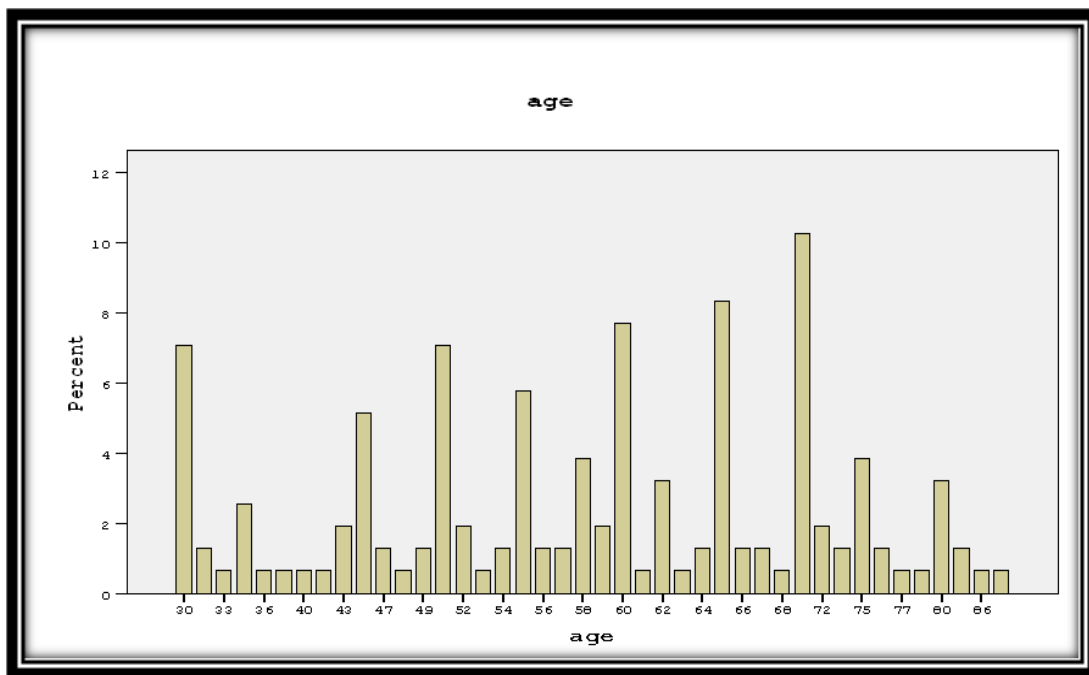
Data analysis: SPSS (Statistical Package for Social Science version 15 and analysis was done using frequency table-charts-chi-square (cross tabs).

Ethical consideration: was Verbal consent taken from the participant and their relatives'.

5. RESULT OF THE RESPONDENT



Blindness related to gender over 60 years old patient in Makah eye complex at 2012 Fig1:
 50.6 % of them are male and the remainder is female



age	Statistic
mean	57.72
mode	70
Minimum rage	30
Maximum range	87

Fig 2: blindness related to age over 60 years old patient in Makah eye complex at 2012

The age increase with decade of life and reach the peak at 70 years old
 The chi square = p value = there is association

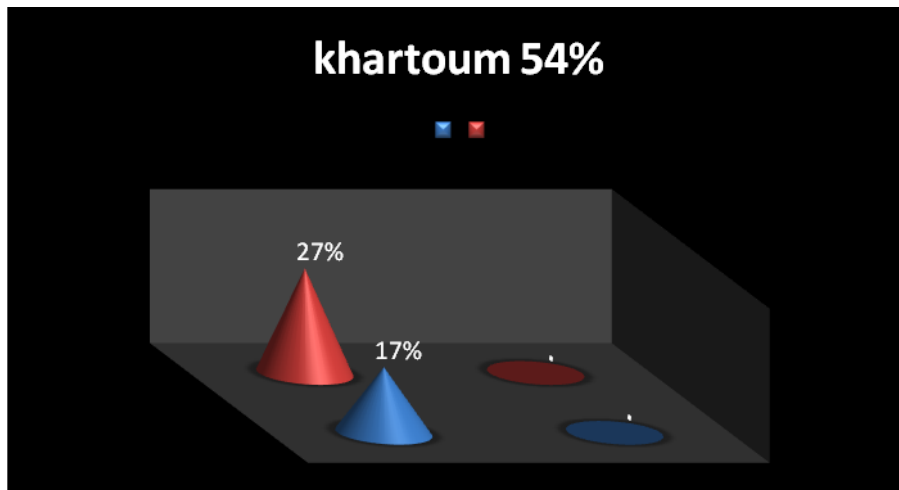


Fig 3: blindness related to residence over 60 years old patient in Makah eye complex at 2012
 54% of them live in Khartoum, 27% in rural area & 17% in urban area (Omdurman & Bahri)

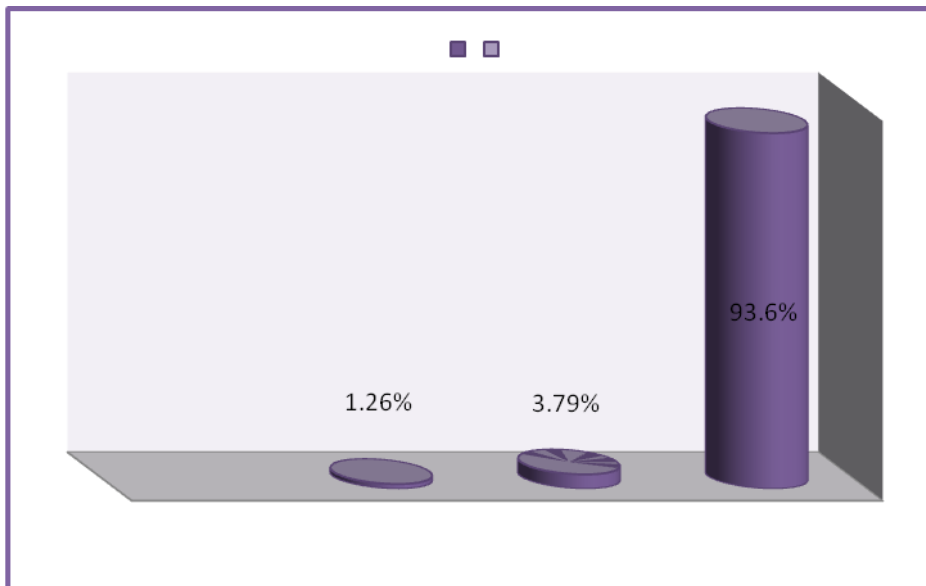


Fig4: Socioeconomic State of blindness over 60 years old in Makah eye complex at 2012
 93% of them have low socioeconomic state only 3.79% have moderate & 1.26% have high economical state

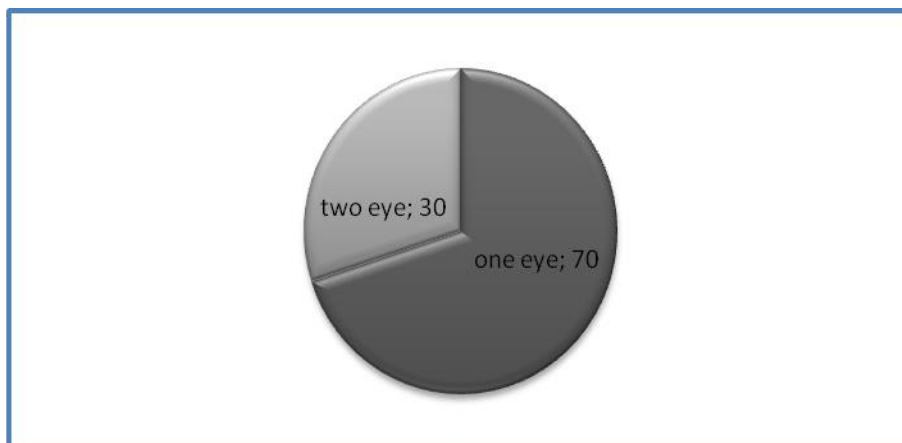


Fig 5: The percentage of one eye blind people versus two eye over 60 years old in Makah eye complex at 2012
 have one affected 70% eye while 30% have two affected %

dignosis of disease * chronic disease Crosstabulation

Count		chronic disease					Total
		DM	HTN	BOTH	all of them	none	
dignosis of disease	catract	8	8	1	0	61	78
	glucoma	6	7	1	3	22	39
	retinal disease	4	6	6	0	15	31
	corneal disease	1	0	0	0	7	8
Total		19	21	8	3	105	156

.personal chi square 32.227 association 2.69

chronic disease

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DM	19	12.0	12.2	12.2
	HTN	21	13.3	13.5	25.6
	BOTH	8	5.1	5.1	30.8
	all of them	3	1.9	1.9	32.7
	none	105	66.5	67.3	100.0
	Total	156	98.7	100.0	
Missing	System	2	1.3		
Total		158	100.0		

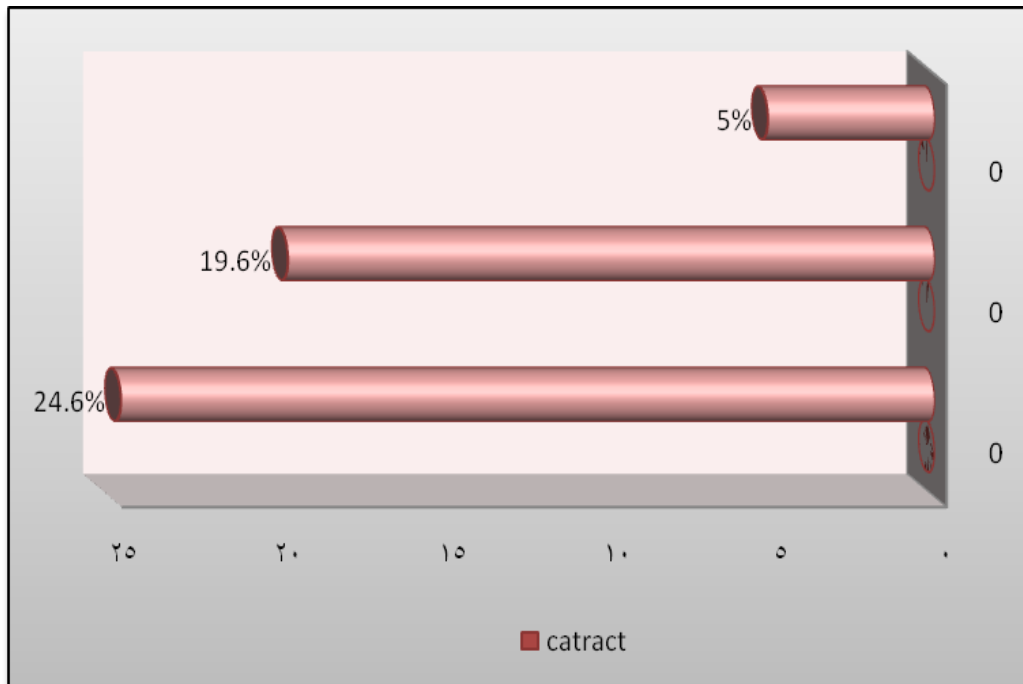


Fig8:Commonest cause of blindness over 60 years old patient in Makah eye complex at 2012

49% is due to cataract, 24% due to glaucoma, 19% due to retinal detachment & 5% due to corneal opacity

Fig9: cross tabs (chi square) between affected eye and social disability over 60 years old blind people in Makah complex at 2012
Association between affected eye & assessing information & mobility. The disability among two eye blindness is higher than the disability among one eye blindness

item	Chi square	P value	association	I Can do only	Need help	I cant	I don't do this work at all
Reading news paper ,holy Quran or books	14.02	.003	yes	20.6%	20.6%	33%	25.4%
				3.7%	0%	66.7%	29.6%
Reading label or instruction on the street	19.41	.000	yes	52.4%	17.5%	23.8%	6.3%
				11.1%	11.1%	70.4%	7.4%
Finding things during shopping	19.26	.000	yes	57%	14.3%	12.7%	15.9%
				22.2%	7.4%	55.6%	14.8%
General looking after appearance	31.41	.000	yes	68.3%	22.2%	6.3%	3.2%
				18.5%	25.9%	55.6%	0%
Operating house hold & telephone	16.76	.001	yes	47.6%	20%	14.3%	17.5%
				18.5%	7.4%	51.9%	22.2%
<hr/>							
Going prayer at mosque	11.29	.010	yes	63.4%	11.1%	14.3%	11.1%
				25.9%	18%	37%	18.5%
Visiting friend & family	10.81	.013	yes	57.1%	23.8%	14.3%	4.8%
				22.2%	37%	37%	37%
Going university or work	6.96	.073	no	34.9%	4.8%	11.1%	49.2%
				14.8%	0%	25.9%	59.3%
Interfere with travilling	11.96	.008	yes	46%	31%	17.5%	4.8%
				14.8%	29.6%	48.1%	7.4%
General safety outside the home	10.17	.017	yes	51%	28%	12.7%	1.6%
				25.9%	33.3%	33.3%	7.4%
Made you fully to avoid falling	9.47	.024	yes	54%	25.4%	20.6%	0%
				22.2%	44.4%	29.6%	3.7%
Spilling or breaking things	13.75	.003	yes	50.8%	19%	28.6%	1.6%
				11.1%	25.9%	55.6%	7.4%
Going down steps or stairs	19.84	.000	yes	52%	28.6%	17.5%	1.6%
				7.4%	33.3%	55.6%	3.7%
Needed help from other in basic activity	25.92	.000	yes	84%	9.5%	6.3%	0%
				29.6%	48.1%	22.2%	0%
General safety at home	9.49	.009	yes	68.3%	23.8%	7.9%	0%
				33.3%	48.1%	18.5%	0%
<hr/>							
Felt embraceable	.056	.813	no	39.7%	60.3%		
				37%	63%		
Felt frustrate or annoy	.476	.490	no	47.6%	52.4%		
				55.6%	44.4%		
Felt lonely or isolated	.857	.355	no	41.3%	58.7%		
				51.9%	48.1%		
Felt sad or low	1.067	.302	no	36.5%	63.5%		
				48.1%	51.9%		
Worried about your eye getting worse	.119	.730	no	66.7%	33.3%		
				70.4%	29.6%		
Worried about coping with everyday life	4.498	.034	yes	46%	54%		
				70.4%	29.6%		
Felt nuisance or burden	2.637	.104	no	28.8%	76.2%		
				40.7%			

6. DISCUSSION

The author collect the data in four days at hospital which was admitted 400 case at one day most of them cataract, glaucoma, retinal, corneal disease so this research give approximate ratio but the exact ratio may need more than the time were used.

Blindness is high among male than female by negligible percentage in male 50.6% and in female 48.1% this is contract to the literature review which conduct that women were found to share a significantly greater burden of blindness and severe visual impairment¹².this may be due to work of the male in dangerous job make them at risk to develop blindness like welding and iron workers without any protection to their eyes by glasses and Building the sidewalk , streets and house with continuous exposure to dust and asphalt and then after period of time affect their eyes .or may be the result due to other factor.

The age of blindness which taken in this study over 30 years old. the majority of ages in records was above 30 years old this make the collected data easy able and with high sample size this matching with literature review that told us The prevalence of blindness among individuals of all age groups was 0.9 percent. The age and gender standardized prevalence of blindness in adults 30 years and older was found to be 2.7%¹³. As demonstrated in the bar chart above the mode (frequency) is increased with decade of life in 30 years the percentage was found 7 percent and at 50 years it became 7.1percent and at 60 years old it increased to 7.7percent and then in 65years old it became higher to 8.3 percent and the last frequency at 70 years old the percentage was 10.3 percent this mean that blindness has high risk indicator with advance age.

surprisingly the 45.4% of blindness distribute in the capital of Sudan al Khartoum more than rural area(27.9%) and urban area(17.3%) like Behr and ohm doorman this is contradicted with lecture review which reported The prevalence of blindness in rural areas was more (3.8%) than prevalence in urban areas (2.5%).¹⁴ this result may be due to travel of the patients for area of available treatment this question was taken from report if it was take by face to face interviewer may the author know more details about residency and area of travel. The percentage of rural area was more than urban area but on other hand the rural area which they come from not the area of epidemic like Abu Hamad this give two mean either the infectious disease is eradicate by heath agenesis nor if we take the study of endemic area the prevalence will increase.

Socioeconomic state under the standard of statistical centre in Sudan determined if the income is 500 pound or less is low income and if it's from 500 to million pound is moderate and if above million is high .and according to classification of countries in the world Sudan is low income country so most of the patient suspected to be with low income with no significant to that most blindness have old age that mean if the patient was have a job know is Retirement and the government give to retirement simple sum of money and if is young below 60 years and have work the situation of eye disease can affect on his work or mobility especially if work teacher ,author ,driver or any job needed focus and attention

The treatment like surgery of cataract ,glaucoma ,retinal detachment is high in Makah hospital more than 2million this interfere with the fact of low socioeconomic state but the author know that the hospital bear sort of the cost the insurance also so the patient pay only 250 pound for surgery

The result of socio economic state is matching with literature review that In low-income countries no more than 5 percent will ever have gainful employment. In rural areas unemployment rates approach 100 percent. Even in industrialized countries unemployment rates from 50 to 75 percent are reported¹⁵ and other study Disability has often been associated with poverty and the people with disability are amongst the "poorest of the poor¹⁵." Because of physical and social barriers, people with disability face loss of opportunity and are excluded because of institutional, environmental and attitudinal discrimination. There are several studies^{16,17} that indicate that people in the lowest socioeconomic group share a greater burden of blindness than those in the higher socioeconomic group. Some eye diseases, such as trachoma, are known to be a direct consequence of poverty. Blindness as a disability leads to unemployment resulting in loss of income, increased level of poverty, lower standard of living and decrease in affordability of health care services. This leads to a vicious cycle of poverty and blindness where majority of the people disabled by blindness are poor and their disability leads to a further decline in their economic productivity and quality of life¹⁹

The chronic disease was reported in record and by using chi square in analysis to study the association between chronic disease and the causes of blindness the author found that value of chi square 2.69 i.e. no association and by using

frequency to determined the percentage the result was DM was 12% most associated with cataract ,glaucoma ,retinal and corneal disease this reflect the fact that diabetic retinopathy is commonest cause of blindness in developed country not developing country².

Hypertensions 13.3% mostly with same sequence and both 5.1% and mostly with retinal disease and 66% hadn't disease so blindness in sudan did not related to chronic disease .

Commonest cause of blindness consequently is cataract 49.4% then glaucoma 24.7% then retinal disease 16.6% and corneal disease 5.1% cataract is clouding that develops in the crystalline lens of the eye³ .Several factors can promote the formation of cataracts, including congenital or due to drugs, but most of patient had negative family history and drug history .or it may due to long-term exposure to ultraviolet light ,this is the suspected cause due to the Weather of Sudan. and the less habit to use sun glasses. Or due to age related cataract, this cause is most suspect because cataract have high relation with advancing age .cataract may secondary to diabetes mellitus and hypertension this factor is exclude because the result improve no association. This result is matching with literature review Age-related cataract is responsible for 48% of world blindness, which represents about 18 million people, according to (WHO).^[18] In many countries, surgical services are inadequate, and cataracts remain the leading cause of blindness. Cataracts are also an important cause of low vision in both developed and developing countries. Even where surgical services are available, low vision associated with cataracts may still be prevalent, as a result of long waits for operations and barriers to surgical uptake, such as cost, lack of information and transportation problems.

In the United States, age-related lenticular changes have been reported in 42% of those between the ages of 52 and 64,¹⁹ 60% of those between the ages 65 and 74,²⁰ and 91% of those between the ages of 75 and 85.¹⁹

The increase in ultraviolet radiation resulting from depletion of the ozone layer is expected to increase the incidence of cataracts^[21].

70% of the blindness with one eye disease sort of them make previous surgery for the other eye and the treatment improve and 30% with two eye disease.

Blindness affected the quality of life in many ways .in assessing information there is association between affected eye and accessing information .all p value bellow .05 the most important result was:

There is association between eye affected and reading holy Quran, news paper and book 33.3% of one eye can't read and while66% of two eyes can't this result show disability.

Regarding to reading label or instruction on the street, 52% of one eye can read while 70% of two eyes cannot access this information.According to finding things during shopping 57% of one eye can find their things, but 55% of 2 eye cannot.In operating house hold application and telephone. 47% of one eye can do, but 51% of two eyes cannot.About general look after appearance, 68% of one blind eye can look for their appearance while 55% of two eyes cannot.

All this result reflect that the disability among two eyes blind is high because the higher percentage in the choice (can't). But there is no disability in one eye patient, because the higher percentage in the choice (I can).

In mobility and independency, the chi square show the significance i.e. there is association between eye affected and mobility and dependency inside and outside the house. For more details the higher percentage was:In going prayer at mosque, 68% of one eye can pray at mosque while, 55% of two eyes cannot. In visiting family or friend, 57% of one eye can visiting friend, but 37% of two eyes cannot &37% need help. In going university or work, 49%of one eye cannot and 59%of two eyes also cannot. In interfering with travailing or using transport, 46% of one eye can travel while, 48% of two eyes cannot. About general safety outside the house, 57%of one eye can take general safety, but 33% of two eyes cannot and 33%need help. Regarding to avoid falling or trapping.44% of one eye can protect them self and 54% of two eyes cannot According to spelling or breaking things, 50% of one blind eye can, but55% cannot.

About going down steps or stairs, 52%of one eye can, and 55%of two eyes cannot.

In related to 84%of one can do basic activity and 48% of two eyes needed help.

In taking general safety at home, 68%of one eye can protect them self, while 48% of two blind eyes need help.From all the results in mobility and in dependency there is no disability in one affected eye patient, while sever disability in two eye patient. Using crosstabs (chi square) between affect eye & the psychiatric effect show that is no association between

affected and the and psychology According to feeling embraceable, 60% in one blind eye not feel embraceable. and 63% of two eyes also About felt furcated or annoyed, 52% of one eye not feel annoy, while 55% of two eye feel annoy. In related to feeling lonely and isolated 58% of one eye without feeling, while 51% of two eyes were felt lonely.

The result of felling sad and low, 63% of one eye not feels sad, and 51% of two eyes also not feel sad. Regarding to worrying about eyes get worse, the two groups were worried, 66% in one eye and 70% in two eyes, but its most in complete blind people .The result of worried about coping in every day in life, the one eye 54% of one eye not worried ,but 70% of two eye worried about get worsen in their life. Regarding to felling nuisance and burden ,the two group not felling burden, 76% of one eye ,and 59% of two eyes also but is most in two eyes from all results in emotional distress one eye blind people were well being but the in two eyes blind people were emotional distress.

7. CONCLUSION

The commonest causes of blindness are cataract, glaucoma, retinal and corneal disease consequently the most commonest is cataract .the risk indicator advance age and is increase in male with negligible percentage. The majority of blind people have low socioeconomic state and there is no relation between chronicity and blindness .the disability is increased among complete blind people more than partial one. The psychiatric effect in one eye blindness is well being but in the two eye blindness there is emotional distress.

8. RECOMMENDATION

The best strategy is(prevention is better than cure)

- 1- Awareness programs should done by make conferences, seminars and workshops to aware the community about cause, risk factor and complication of this disease,
- 2- Built special school, books and roads with special sign for blindness to freely moveable,
- 3- Give the old blind people which cannot work monthly budget to support them and the treatment should be under insurance
- 4- The families of the blind should be provided social support, training and guidance so that they can take good care of the social and emotional needs of their blind family member as well as themselves.
- 5- If above recommendations are implemented, we would be able to ensure that the blind are given access to basic human rights and live their lives with dignity and as productive members of their families and community.

REFERENCES

- [1] International Council of Ophthalmology. "International Standards: Visual Standards — Aspects and Ranges of Vision Loss with Emphasis on Population Surveys." April 2002.
- [2] Belote, Larry. "Low Vision Education and Training: Defining the Boundaries of Low Vision Patients." *A Personal Guide to the VA Visual Impairment Services Program*. Retrieved March 31, 2006.
- [3] WILLIAM ROWLAND- Blindness, Poverty, and Development- December 2004
- [4] Zahid Hussain Awan, P.S. Mahar, M. Saleh Memon- Blindness and Poverty
- [5] Dandona L, Dandona R, Srinivas M et al. Blindness in the Indian State of Andhra Pradesh Investigative Ophthalmology and Visual Science. 2001; 42: 908-16.
- [6] Gilbert CE, Shah SP, Jadoon MZ, et al. Poverty and blindness in Pakistan: results from the Pakistan national blindness and visual impairment survey. *BMJ*. 2008; 336: 29-32.
- [7] Smith AF, Smith JG. The economic burden of global blindness: a price too high. *Br J Ophthalmol*. 1996; 80: 276–7.
- [8] WHO.int, | Priority eye diseases.

- [9] ^{ab}Sperduto RD, Seigel D., Seigel D. Sperduto RD (Jul 1980). "Senile lens and senile macular changes in a population-based sample". *Am J Ophthalmol*90 (1): 86–91. PMID 7395962.
- [10] Kahn HA, Leibowitz HM, Ganley JP, Kini MM, Colton T, Nickerson RS, Dawber TR (Jul 1977). "The Framingham Eye Study. I. Outline and major prevalence findings". *Am J Epidemiol*106 (1): 17–32. PMID 879158.
- [11] Dobson, R. (2005). "Ozone depletion will bring big rise in number of cataracts". *BMJ*331 (7528): 1292–1295. DOI:10.1136/bmj.331.7528.1292-d.PMC 1298891.www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pmcentrez&artid=1298891.Edit

Bibliography:

- [12] Research of changing definition of blindness. ICD10th Revision 1st and 2nd edition
- [13] [www.google](http://www.google.com) blindness wencyclopedia
- [14] [www.google](http://www.google.com) cataract wencyclopedia