International Journal of Science and Research (IJSR)
ISSN: 2319-7064
ResearchGate Impact Factor (2018): 0.28 | SJIF (2018): 7.426

Prevalence of Headache among School Going Children Opthalmology OPD in Saveetha Medical College and Hospital, Chennai, Tamil Nadu, India

A. Lynda[1], Dr. V. Panimalar[2]

Objective

1) Prevalence of headache among school going children
2) To assess the various reasons , pattern of headache and their associated risk factors

1. Introduction

Recurrent headache is a common problem in school children. Evaluation generally leads to the diagnosis of Refractive Error. This review is addressed to the question whether headaches in school children are becoming more common and, if so, what risk factors are associated with the rise in frequency. They are often associated with other physical and emotional complaints.(1)

2. Methodology

150 students will be included in the study out of which 130 students have headache. Pre formed proforma will be used to collect data. Detailed eye check up will be done . Interdepartmental references will be taken where ever necessary. This was done Saveetha Medical hospital . The data collection for the study was collected for a period of 3 months from January 2019 to March 2019

Inclusion criteria

Inclusion criteria were all the individuals between the age of 8 to 18years

Exclusion criteria

All individual below the age of 8 years and above the age of 18years. A total of 150 children were included in the study out of which 130 students suffered headache

1) All the patients were examined by ophthalmologists and refraction was done byoptometrists.
2) The patients underwent the following examinations:
   a) Visual acuity measurement with the help of Snellen's chart for distant vision in older andcooperative patients.
   b) Any child having visual acuity of 6/9 or worse was examined for refractive error.
3) Extraocular movements, Hirschberg test, cover-uncover test for detection of squint.
4) Gross examination of cornea, conjunctiva, anterior chamber, iris, and pupil with a torch light.
5) Examination of the anterior segment with slit lamp was done when needed.
6) Retinoscopy and subjective refraction for all the patients suspected of having others refractive error.
7) Cycloplegic refraction when needed.
8) Examination of fundus with direct ophthalmoscope. Indirect ophthalmoscopy when needed.
9) More datas were obtained from other inter-departments like otorhinolaryngology to rule out headache due to sinusitis
10) Complete detailed history was taken to rule out family history , nutritional status , sleep pattern

Ethical clearance was obtained from institutional ethics committee of the college before conducting the study. Informed verbal consent was taken from guardian of the study participants. A special book was maintained to collect the data from the patients. The collected data were analyzed by appropriate statistical methods by using SPSS software. Chi-square test ($\chi 2$) was applied to test the association and $p<0.05$ was considered as significant.

P value =0.000418
The result is significant at $p < 0.05$

3. Result

1) Prevalance of headache among school going children

Number of students	Headache present	Percentage	Prevalance/100
150	130	86.66	866.66

2) Gender specific Prevalance of headache among school going children P value<0.05

Gender	Positive cases		Population at risk		Prevalance/1000
	No	%	No	%	
Male	54	41.53	48	68.57	1125
Female	76	58.46	22	31.42	3454.54
Total	130	100.00	70	100.00	

3) Age specific Prevalance of headache among school going children

P value <0.05

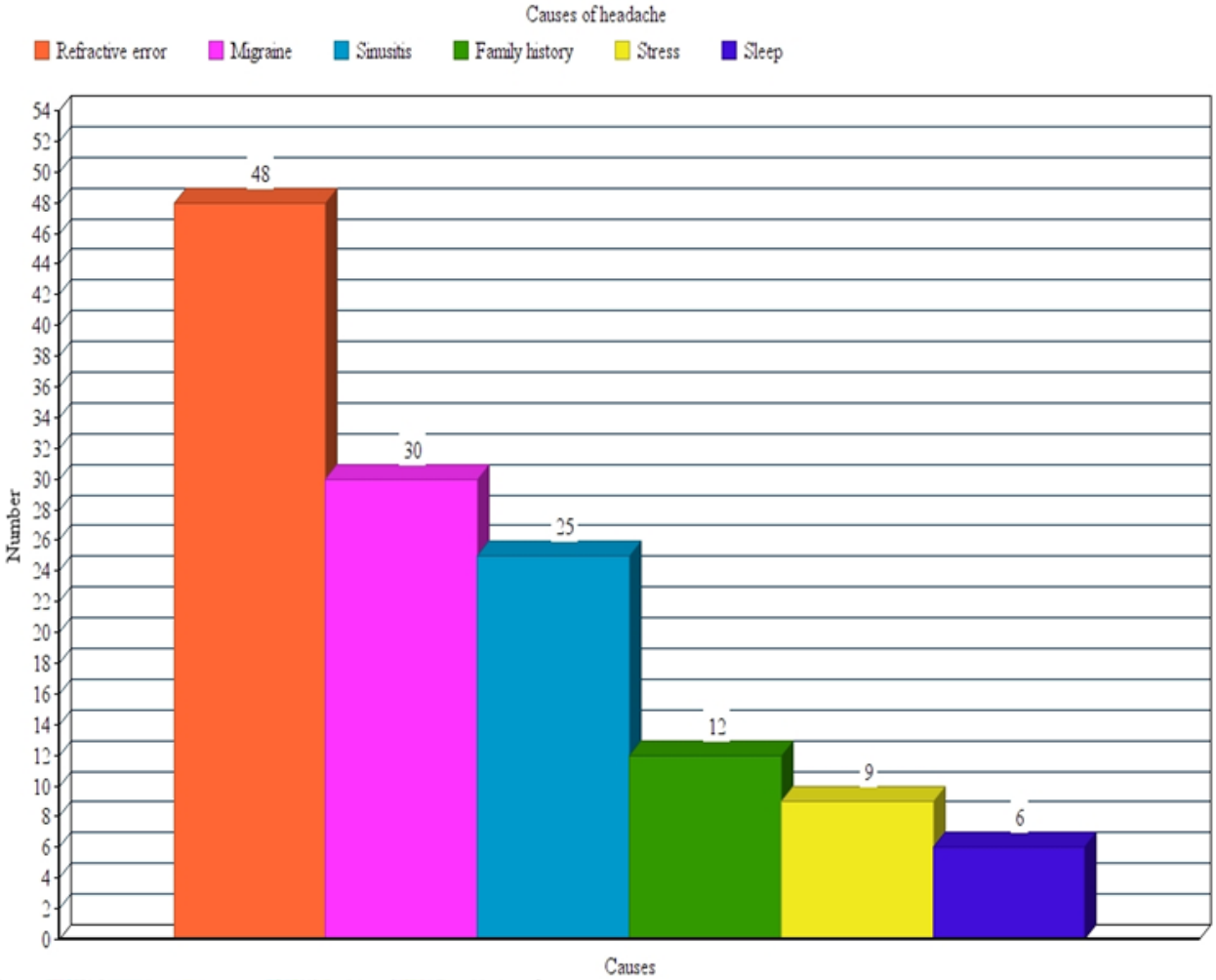
Age	Positive cases		Population at risk		Prevalance/1000
	No	%	No	%	
8-11	10	7.69	8	11.42	1250
12-15	58	44.61	18	25.71	3600
16-18	62	47.69	44	62.85	709.67
Total	130	100.00	70	100.00	

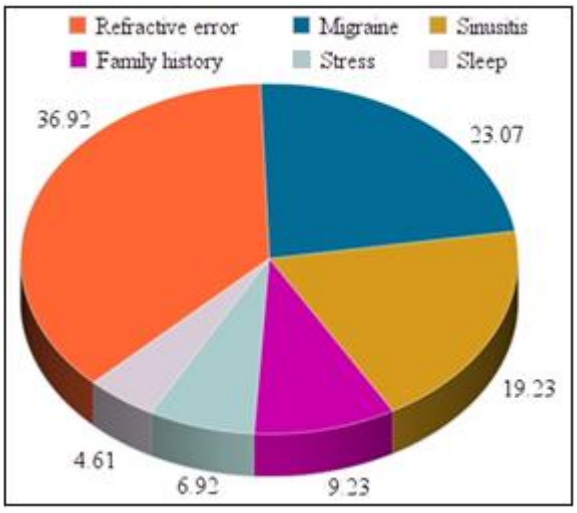
4) Prevalance of headache subtypes among school going children

P value<0.05

Headache type	Positive cases	Percentage
Refractive error	48	36.92
Migraine	32	23.07
Sinusitis	25	19.23
Family history	12	9.23
Stress	9	6.92
Sleep	6	4.61

Licensed Under Creative Commons Attribution CC BY





4. Discussion

Ocular anomalies is mostly manifested with complaints of headache. Refractive error should be checked in all headache patients. It is also important to take a proper case history about headache to the patient. (2)

Headache and refractive error are common in general population. Headache frequency associated with refractive error (72.5) ismore than other any other causes of headache according to the study of Gil Gouveia(3)

The prevalance of migraine and stress related headache according to Katarina Laurell , Bo Larsson and OrvarEegOlofsson 's study is 9.8% and 11% which is slightly different from this study where migraine is 23.07% and stress related headache is 6.92% (4)

According to Singh NN deprivation from sleep also causes headche.Although the percentage is not mentioned , according to this study its 4.61 which is the least cause of headache .(5)

The prevalance of headache according to A. HameedMalik's study is more common in female patients 65.15% than in males 35.85% which is same as in this study that is females 58.46% and males 41.53%(3)

The overall Prevalance of headache changes in various studies according to the study by A. Hameed Malik , ParvaizA.Shah and YawarYaseenwas found to be 664/1000 whereas in this study the overall Prevalance of headache is 866.66/1000(6)

5. Conclusion

This study revealed an overall prevalance of headache among school going children 866.66/1000 population with a trend of increase in age.

Gender specific prevalance rates revealed a statistically significant higher prevalance of headache disorder in female

Licensed Under Creative Commons Attribution CC BY

sex. Among all the causes of headache disorder refractive error is the most important cause of headache in this study, followed by migraine then sinusitis. Genetics also plays an role in causing headache . Stress factors can also trigger headche, then last comes deprivation from sleep.

Students should be educated to diagnose refractive error from the early level. Maintaining correct distance while reading books , minimal usage of electronic gadgets should be thought to students. Balanced diet should be given to children enriched in vitamin A.

Headaches are not uncommon in childhood and increase in frequency during adolescent life

Hence it's important to check the eye at least once a year and ensuring early correction of refractive error.

Reference

[1] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3865491/ (1)
[2] http://www.journalofoptometry.org/en-ocular-morbidity-on-headache-ruled-articulo-S1888429612000283 (2)
[3] https://www.ncbi.nlm.nih.gov/m/pubmed/12010381/ (3)
[4] https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=prevalance+of+headache+among+school+going+children&btnG=#d=gs_qabs&u=%23p%3DLDb-Ezb2XvwJ (4)
[5] https://www.ncbi.nlm.nih.gov/m/pubmed/24132786/(5)
[6] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3444214/ (6)

Licensed Under Creative Commons Attribution CC BY