

thrombosis and epilepsy while patients infected with the Omicron variant had an increased risk of encephalitis, encephalopathy and Bell palsy. Moreover, even though the Omicron variant is associated with lower mortality rates, the risk of psychiatric or neurological problems remains similar to that of Delta. Anosmia and post-COVID are less frequently associated with Omicron infections compared to infections caused by Alpha, or Delta variants, but no differences are observed in the risk of neurological and psychiatric outcomes between the Delta and Omicron variant.

Conclusions

It is now clear that this infection does not only include the respiratory system but has consequences that affects the cardiovascular, neurological, and musculoskeletal system in addition to other organs. Recognizing the post COVID-19 of different strains is a crucial in scheming an appropriate health management strategy. It was found that Delta is more transmissible and has high mortality rate with increased risk of vascular disorders and anosmia and post-COVID is less common when seen with omicron variant compared to Alpha and Delta variants, but no differences between them in terms of risks of neurological and psychiatric outcomes. At present there is lack of studies that can be used to evaluate the CT and PFT results of post COVID-19 caused by unique variants. Thus, more research studies are needed. Also, patients who stay longer in the intensive care unit may advance to post-intensive care syndrome. Therefore, besides paying attention to the respiratory syndrome, it is necessary to evaluate and treat anxiety, depression, or other neurological disorders that derived from a condition with prolonged bed rest and invasive mechanical ventilation.

LITERATURE

1. Maltezou, H. C. Post-COVID Syndrome: Incidence, Clinical Spectrum, and Challenges for Primary Healthcare Professionals / H.C. Maltezou, A. Pavli, M. Theodoridou. – 2020. – Vol. 17, № 2. – P. 3–26.
2. Neurological manifestations of long-COVID syndrome: a narrative review / M. I. Stefanou [et al.] – 2020. – Vol. 20, № 6. – P. 63.
3. Comparison of Long COVID-19 Caused by Different SARS-CoV-2 Strains: A Systematic Review and Meta-Analysis / M. Du [et al.] // Int J Environ Res Public Health. – 2022. – Vol. 17, № 2. – P. 3–26.

УДК 616.858-052(540)

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AN OVERVIEW REVIEW OF PARKINSON’S DISEASE IN INDIAN POPULATION

Introduction

Parkinsons disease, one of the second most neurodegenerative disease in the ongoing population in India as well as worldwide after the Alzheimer’s disease. It is known as one of the chronic, progressive, degenerative disorder of nervous system which majorly effects the population among the elders. According to the recent times of research it has been noted that approximately 1.5% of Indian population over the age of 60 suffers from Parkinson’s disease and its associated further increase in the cases. Age has been depicted as of the major risk factors for the Parkinson’s disease in the recent times. Hence AGE – RELATED Parkinson’s disease has are of increasing concern in present days. We also see that there is almost 5–10% of the patients have been noticed as age groups below 20 years, which is 2% of 2 million people. Although

age has been specified as one of the main risk factor, genetic variation has also been taken into the note of one of the most causing risk factor. Several genetic mutations are associated with PD, including the alpha-synuclein gene, and many more genes have been tentatively linked to the disorder. Presently researches have been focusing on the particular overview of Parkinsons dementia. The major pathology included is that of accumulation of insoluble protein synuclein in the specific neurons, this protein in normal condition is soluble (the alfa form) , but for unknown reasons it turns into beta form. Under the microscope they are like the intracellular little bodies of Levi, which gradually cover all space of the cell and lead to degeneration its death. Major symptoms includes syndrome of akinetic-rigid syndrome which includes akinesia, oligokinesia and bradykinesia, tremors, loss of automatic movements, speech changes, writing changes.

According to the latest WHO data published in 2020 Parkinsons Disease Deaths In India reached 43,398 or 0.51 of the total deaths. The age Death Rate is 4.57 per 100,000 of population ranks India 65 in the world. Review other causes of death by clicking the links below or choose the full health profile.

Goal

The study was made to make further advanced assessment on the spread of the disease. The main goals focused from the review of several articles from the recent research work was to recognise the early symptoms of the Parkinson’s disease and to prevent the further on going spread if the disease. Also to modify the drugs of choice to prevent the hypoenchephalic effects.

Material and methods of research

On studying a work, the research was conducted on risk factors Parkinson’s disease. It is an age – matched case control studied which is related with odds ratio with the 95% confidence interval (CI). There were a total of 180 cases matched with 360 controls. The main aim of this case control study was to identify various characteristics of individuals associated with Parkinson’s disease risk factors and to compare their characteristics with those of healthy subjects considered as controls.

Results of the research and their discussion

Based on Comparison between cases and controls based on socio – demographic variables Five hundred forty (540) eligible participants (180 cases and 360 controls) were invited to participate in this study. There has been a comparison done among the general demographic of different characteristics of cases and controls. There was much no variation in the age difference between the ages of the cases and controls. The average age of the controls was around 68years. Average of males in average was 68.81 years and average age among females as 67.67 years. Standard deviation among males was 11.3 and among females was 11.7. There was similar education level between the cases and controls (Table 1).

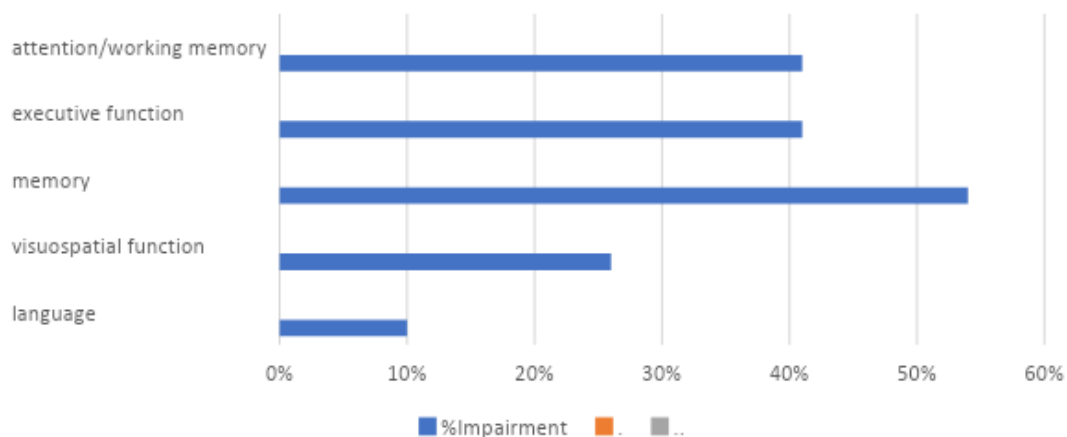
Table 1 – Comparison of the socio-demographic variables between cases and controls

Characteristics	Cases	Controls	P Values
Number of participants	180	360	
Age (y)	68.09 ± 11.3		0.78
Age (y)			0.42
≤ 50	13(7.2)	23(6.4)	
> 50	167 (92.8)	337 (93.6)	
Body mass index (kg/m ²)	25.3 ± 3.9	25.7 ± 3.2	0.2
Gender			
Female	63(35)	185 (51.4)	
male	117(65)	175 (48.6)	0.0001

End of the table 1

Characteristics	Cases	Controls	P Values
Number of participants	180	360	
Age (y)	68.09 ± 11.3		0.78
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Gender			
Female	63(35)	185 (51.4)	
male	117(65)	175 (48.6)	0.0001
Area of residence			0.53
urban	108(60)	226 (62.7)	
rural	72(40)	134 (37.3)	
Level of education			0.27
None	92 (51.1)	198 (55)	
Primary	44 (24.4)	92 (25.5)	
Secondary	28 (15.6)	53 (14.7)	
University	16 (8.9)	17 (4.8)	

The univariate Logistic regression analysis revealed that the distribution of gender among both populations was different: there was a preponderance of males in cases. There was a 1.96-fold (CI 95% 1.35–2.84) increase in the risk of the disease in males compared to females. Cases (n = 43, 23.9%) had more family history of PD as controls (n = 18, 5%). Family history of PD correlated with significantly increased risks of PD (OR = 5.96, (CI 95% 3.32–10.70)). Also, a previous head injury is a risk factor with an OR of 3.41 (CI 95% 1.51–7.68). Additionally, a history of diabetes is associated with an Odds Ratio of 1.12 (CI 95% 0.76–1.66) but is not statistically significant.



Picture 1 – Frequency of each abnormal cognitive domain in whole Parkinson disease population

Conclusions

The final Parkinson disease model of risk suggested that the possibly genetic and factors played an essential role in the etiologic of the disease in this series. According to the present case-control study, positive family history is the primary nonenvironmental risk factor for Par-

kinsons disease, indicating the importance of expanding understanding of the genetic underpinnings of this disease. Hence the growing cases of the disease needs an early diagnosis before seeing the chronic symptoms in the alter elderly ages. Based on different aspects of research further genetic variations modifying researches should be done in the gene level to decrease the genetic factor of spreading of the disease. A single risk factor, therefore, is likely to pose a low risk and will likely differ depending on the specific characteristics of the population. Future research will need to identify additional risk factors.

LITERATURE

1. Annals of Indian Academy of Neurology // Official Journal of Indian Academy Of Neurology, Research in Parkinsons Disease in India: A review, Ann Indian / Acad Neurol. – 2016. – № 19. – P. 9–10.
2. Risk Factors of Parkinson’s Disease: A Case-Control Study in Moroccan Patients / A. Achbani [et al.] // Arch Neurosci. – 2022. – № 9. – P. 13–14.
3. Case Study ON Patient with Parkinsons Disease, International Journal of Creative Research Thoughts (IJCRT) // 4454, Author: Dr. Rakesh Gupta Consultant Physician. 2020. – № 17(5). – P. 565–576.
4. *Pearce, J. M.* Aspects of the history of Parkinson’s disease / J. M. Pearce // J Neurol Neurosurg Psychiatry. – 1989. – № 3. – P. 6–10.
5. Genetic Architecture of Parkinson’s Disease in the Indian Population: Harnessing Genetic Diversity to Address Critical Gaps in Parkinson’s Disease Research. – 2021. – № 6. – P. 52–53.

УДК 615.857:796.015

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EFFICACY OF PHYSICAL EXERCISES AS A TREATMENT METHOD OF MIGRAINE

Introduction

Migraine is among the most common neurological disorders with high prevalence among young adults. Globally, age-standardized prevalence of migraine has been increased by 1.7% recently [1]. Migraine is a recurring syndrome of headache which is exaggerated by physical activity and followed by other neurological dysfunction symptoms such as nausea, photophobia and phonophobia [1, 2]. Additionally, in some patients, the migraine headache can be accompanied by aura which are sensory symptoms such as flashes of light, blind spots or tingling in hands or face that appear before or during the episode [2]. Moreover, it is also to be considered as the world’s most disabling medical illness as it causes marked economic and social effects like decreasing quality of life thus impairing work and family life [2]. In the present time exist various acute and preventive pharmacological treatment options like administration of triptans, ergots, acetaminophen and nonsteroidal anti-inflammatory drugs. Despite the fact that lack of effectiveness of these drugs and presence of adverse effects with continuous usage proceed towards exploring of non-pharmacological options to treat migraine [2, 3]. Moreover, evidences exist validating that exercise can be used to manage chronic pain conditions including depression, anxiety and sleep disorders.

Goal

Migraine is on the rise globally and decreased or lack of effectiveness of existing preventive measures on management of migraine lead the way for investigation of newer nonpharmacological treatment methods for migraine. Therefore, the primary intention of this