International Journal Dental and Medical Sciences Research
Volume 4, Issue 6, Nov-Dec 2022 pp 518-519 www.ijdmsrjournal.com ISSN: 2582-6018

A Retrospective Observational Study of Central Nervous System Involvement of Mucor-Mycosis as a Post Covid-19 Sequelae in Patients Who Admitted to GGH, Kakinada

Dr. Bhargavi Sowmya Kondra, Dr.R. Gowtham Praveen, M.D, DM
Institution:Rangaraya Medical College
Abstract Category: Neurology
Preferred Mode of Presentation: Platform

Submitted: 01-12-2022 Accepted: 10-12-2022

I. BACKGROUND:

Fungal infections of the cns though rare, have become increasingly common in the past several decades due to increased use of immune suppressive therapies wider availability of stem cell and organ transplantation and due to aidsMore recently in covid and post covid patients due to poor masking, steroids, oxygen and associated risk factors like Dm. Those growing large, branched hyphae eg, the septate mycetes (asperigillosis), non-septate mycetes eg; zygomycosis have prospensity to invade blood vessels causing stroke as well as invasion of orbits, sinuses, and cranial bone.Mucormycosis is an emerging angioinvasive infection caused by the ubiquitous filamentous fungi of the Mucorales order of the class of Zygomycetes. Mucormycosis also remains a threat in patients with diabetes mellitus and immunocompromised

II. MATERIALS AND METHODS:

Data was collected from Mucor mycosis patients with neurological manifestations as a post COVID sequelae who admitted to GGH, Kakinada. A total of 93 patients data collected, entered in MS Excel for analysis (P <0.05 was taken significant). Patients who gave valid consent and had history of Covid-19 positive were included.

III. RESULTS:

A total of 93 cerebral mucormycotic patients were admitted in the study period. Mean age was 50.19 ± 12 years. Among them 69(74%) were males and 24(26%) were females. 90% of patients had previous history of active covid-19 infection. Nearly 68(73%) patients have diabetes out of which 66(97%) had uncontrolled blood sugars, while 34(36%) patients have hypertension as risk factor. Nearly 70% of patients had a history of steroid usage. 52(55%) had history of oxygen usage. Almost every patient 92(99%) developed fungal sinusitis, 75(80.6%) developed proptosis, 15(16%) developed stroke, only 3(0.03%) developed meningitis. Fungal organism isolation was observed in 49(52%) patients. Out of 93 cases 74(79%) were recovered, 7(7.5%) were deceased, 12(13%) recurrent infection observed

Distribution of study subjects in relation to outcome				
	RECOVERED (74)	RECURRENT (12)	DEATH (7)	P VALUE
MALE (69)	57	8	4	0.421
POST COVID (85)	67	11	7	0.508
RISK FACTORS				
HYPERTENSION (34)	25	6	3	0.522
DIABETES MILLETES (68)	56	8	4	0.494
STEROID USAGE (66)	53	8	5	0.94
OXYGEN THERAPY (52)	40	8	4	0.715
CLINICAL SYMPTOMS				
FUNGAL SINUSITIS (92)	73	12	7	0.878
PROPTOSIS (75)	60	9	6	0.831

International Journal Dental and Medical Sciences Research
Volume 4, Issue 6, Nov-Dec 2022 pp 518-519 www.ijdmsrjournal.com ISSN: 2582-6018

STROKE (15)	12	1	2	0.518
MENINGITIS (3)	3	0	0	0.672

ORGANISMS ISOLATED (49)	
ORGANISM	FREQUENCY
Rhizopus	27
Aspergillus	1
Aspergillus flavus	5
Aspergillus fumigatus	6
Aspergillus Niger	4
Candida species	1
Mucor	4
Rhizopus and Aspergillus	1

On CSF analysis microorganisms were detected in n=49 of the study population of which Rhizopus in n=27, Asperigillus fumigatus n=6, Aspergillus flavus n=5, and others like Asperigillus niger, Mucor, Candida species. Rhizopus and Aspergillus detected in 1 study subject

ORAGANISMS ISOLATED IN SPECIFIC MANIFESTAIONS			
ORGANISM ISOLATED	**PROPSTOSIS**	**MENINGITIS**	**STROKES**
ASPERIGILLUS FUMIGATUS	3		1
ASPERIGILLUS FLAVUS	4		3
ASPERIGILLUS NIGER	3		2
RHIZOPUS	20	2	
MUCOR	4	1	1
CANDIDA	1		

IV. CONCLUSION:

Mucormycotic is an invasive fungal disease seen as a post covid complication in these patients. Individuals with risk factors like diabetes, hypertension, steroid usage are more prone.Overall, most frequently isolated organism is Rhizopus, whereas most frequently isolated organism in patients with cns manifestations is asperigillus involvement of cns in the form of stroke and other forms represents one of the most severe manifestation of mucormycosis, often determines the survival and functional out comes of the patient.