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Title : **COVID-19: An update on diagnostic and therapeutic approaches**

Author's name :**Mahalaxmi Iyer[1,2], Kaavya Jayaramayya[2], Mohana Devi Subramaniam[1], Ssang-Goo Cho[3], Balachandar Vellingiri[4,*]**

Affiliation :

[1]Department of Genetics and Molecular Biology, Vision Research Foundation, Chennai 600- 006, India

[2]Department of Zoology, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore 641-043, India

[3]Department of Stem Cell and Regenerative Biotechnology, Konkuk University, Seoul 05029, South Korea

[4]Human Molecular Cytogenetics and Stem Cell Laboratory, Department of Human Genetics and Molecular Biology, Bharathiar University, Coimbatore 641-046, India.

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Corresponding Author's Information:

Mobile: +91 9994999924; Office: +91 422 2422514; +91 422 2422222; Fax: +91 422 2422387

E-mail: geneticbala@buc.edu.in ; geneticbala@yahoo.co.in

Supplement table 1: Details of the haematological parameters assessed in COVID-19

Parameter	Study size	Abnormality	% of patients with abnormality	Remarks	Reference
Hemoglobin	85	Decreased	48.2%	Fatal cases	(Du et al., 2020)
Hematocrit	85	Decreased	62.4%		
Anaemia	28		75%		(Zhang et al., 2020)
ESR	69	>=20	52%		(Z. Wang et al., 2020)
	22	Elevated	50%		(Zhu et al., 2020
	37		46%	Positive correlation with pneumonia	(Xiong et al., 2020)
	27		66.7%		(Zhou et al., 2020)
	22(Paediatric)		Mean elevation		(B. Li et al., 2020)
	28		57.1%		(Zhang et al., 2020)
	44		100%		(Yang et al., 2020)
	46 959		42.2%		(Y. Cao et al., 2020)
WBC	69	Decreased	54%		(Z. Wang et al., 2020)
	17		52.9%		(Han et al., 2020)
	37		27%		(Xiong et al., 2020)
	161		41%		(ZHENG et al., 2020)
	85		11.8%	Fatal cases	(Du et al., 2020)
	59 COVID 14-non pregnant		100%		(H. Liu et al., 2020)
	16-pregnant-Laboratory confirmed		50%		
	25-Pregnant – clinically diagnosed		64%		
	4- Children		25%		
	32		22%		(W. Zhu et al., 2020)
	29		79.3%		(Chen et al., 2020)
	20(Paediatric)		20%		(Xia et al., 2020)
	131		8%		(X. Li et al., 2020)
	28		32.1%		
	36 (Paediatric)		19%		(Qiu et al., 2020)

	46 959		36.9%		(Y. Cao et al., 2020)
	11- COVID+ 22-Controls			Count was lowered in patients with COVID-19 pneumonia as compared to non-COVID-19 pneumonia	(Cheng et al., 2020)
	86 patients, 11 confirmed			Levels were lower in patients with confirmed COVID-19 as opposed to the suspected ones	(Peng et al., 2020)
	59 COVID	Leucocytosis	-		(H. Liu et al., 2020)
	14-non pregnant				
	16-pregnant-Laboratory confirmed		50%		
	25-Pregnant – clinically diagnosed		36%		
	4- Children		-		
	20		10%		(Xia et al., 2020)
	131		7%		(X. Li et al., 2020)
	85		44.7%	Fatal cases	(Du et al., 2020)
	46 959		11%		(Y. Cao et al., 2020)
Basophil	85	Increased	4.7%	Fatal cases	(Du et al., 2020)
Eosinophil	69	<0.02	72%	Eosinophils in 31 patients was 0	(Z. Wang et al., 2020)
	14	Decreased	85.7%		(Y. Zhu et al., 2020)
	85		81.2%	Study including fatal cases	(Du et al., 2020)
Neutrophil	69	Decrease	39%		(Z. Wang et al., 2020)
	131		4%		(X. Li et al., 2020)
	85		12.9%		(Du et al., 2020)
	339		Mean level	Significant difference between people who survived and died	(L. Wang et al., 2020)
	19-COVID-19	Elevated	61.11%	Similar levels of abnormality in Pneumonia and	(Zhao et al., 2020)
	15- Pneumonia	neutrophil ratio		COVID patients	
	59 COVID		14%		(H. Liu et al., 2020)

	14-non pregnant				
	16-pregnant-Laboratory confirmed		88%		
	25-Pregnant – clinically diagnosed		80%		
	4- Children	Decreased neutrophil ratio	50%		
	32	Neutrophilia	9%		(W. Zhu et al., 2020)
	131		13%		(X. Li et al., 2020)
	85		60%	Fatal cases	(Du et al., 2020)
lymphocyte	69	<1.1	42%		(Z. Wang et al., 2020)
	59 COVID	Decreased	79%		(H. Liu et al., 2020)
	14-non pregnant				
	16-pregnant-Laboratory confirmed		56%		
	25-Pregnant – clinically diagnosed		64%		
	4- Children	Increased	50%		
	32	Decreased	59%		(Zhu et al., 2020
	29		68.9%		(Chen et al., 2020)
	19-COVID-19		63.18%	Similar levels of abnormality in Pneumonia and COVID patients	(Zhao et al., 2020)
	15- Pneumonia				
	37		51%		(Xiong et al., 2020)
	30		80%		(Zhou et al., 2020)
	20(Paediatric)		35%		(Xia et al., 2020)
	16		39%		(Young et al., 2020)
	161		26.1%	Decreased in severe group	(ZHENG et al., 2020)
	131		57%		(X. Li et al., 2020)
	85		77.6%	Fatal cases	(Du et al., 2020)
	339		63.2%	Significant difference between people who survived and died	(L. Wang et al., 2020)

	102		63.7%	Increase in levels during hospitalization and elevation in non-survivors	(J. Cao et al., 2020)
	17		47.1%		(Han et al., 2020)
	28		82.1%		(Zhang et al., 2020)
	36 (Paediatric)		31%		(Qiu et al., 2020)
	44		52.27%		(Yang et al., 2020)
	15 (Pregnant)		80%		(D. Liu et al., 2020)
	46 959		57.4%		(Y. Cao et al., 2020)
	56	Decreased		Lymphocytes were decreased in elderly as compared to younger patients	(Xia et al., 2020)
	20(Paediatric)	Lymphocytosis	15%		(K. Liu et al., 2020)
Monocytes	85	Increased	18.8%	Fatal cases	(Du et al., 2020)
		Decreased	8.2%	Fatal cases	(Du et al., 2020)
	339		Mean level	Significant difference between people who survived and died	(L. Wang et al., 2020)
Platelets	449	Increased	Higher mean	In comparison with non-COVID patients	(Yin et al., 2020)
	85		7.1%	Fatal cases	(Du et al., 2020)
		Decreased	41.2%		
	339		Mean level	Significant difference between people who survived and died	(L. Wang et al., 2020)
	11- COVID+ 22-Controls	Reduced		Count was lowered in patients with COVID-19 pneumonia as compared to non-COVID-19 pneumonia	(Cheng et al., 2020)

Supplement table.2 Details of the biochemical parameters assessed in COVID-19

Parameter	Study size	Abnormality	% of patients with abnormality	Remarks	Reference
ALT	69	>35	33%		(Z. Wang et al., 2020)
	19-COVID-19 15- Pneumonia	Increase	27.78%	Levels were higher in COVID-19 patients as compared to ones with pneumonia	(Zhao et al., 2020)
	85		16.5%	Fatal cases	(Du et al., 2020)
	102		24.8%	Increase in levels during hospitalization and elevation in non-survivors	(J. Cao et al., 2020)
	44		15.91%		(Yang et al., 2020)
AST	69	>40	28%		(Z. Wang et al., 2020)
	19-COVID-19 15- Pneumonia	Increase	27.78%	Levels were higher in COVID-19 patients as compared to ones with pneumonia	(Zhao et al., 2020)
	161		13.7%	Increased in severe group	(ZHENG et al., 2020)
	85		32.9%	Fatal cases	(Du et al., 2020)
	44		13.64%		(Yang et al., 2020)
LDH	69	>245	41%		(Z. Wang et al., 2020)
	29	Increased	68%		(Chen et al., 2020)
	19-COVID-19 15- Pneumonia	Increased	31.58%	Levels were higher in COVID-19 patients as compared to ones with pneumonia	(Zhao et al., 2020)
	26		58%	Positive correlation with pneumonia	(Xiong et al., 2020)
	161		23.6%	Increased in severe group	(ZHENG et al., 2020)
	85		82.4%	Fatal cases	(Du et al., 2020)
	28		50%		(Zhang et al., 2020)
	44		43.18%		(Yang et al., 2020)
	46 959		57%		(Y. Cao et al., 2020)

CRP	69	Increase	67%		(Z. Wang et al., 2020)
	59 COVID 14-non pregnant		50%		(H. Liu et al., 2020)
	16-pregnant- Laboratory confirmed		81%		
	25-Pregnant – clinically diagnosed		56%		
	4- Children		25%		
	56			Increased in elder patients as compared to younger ones	(K. Liu et al., 2020)
	32		66%		(Zhu et al., 2020
	29		93%		(Chen et al., 2020)
	32		84%	Positive correlation with pneumonia	(Xiong et al., 2020)
	27		100%		(Zhou et al., 2020)
	20 (Paediatric)		45%		(Xia et al., 2020)
	16		38%		(Young et al., 2020)
	14		42.8%		(Y. Zhu et al., 2020)
	161		75.2%	Increased in severe group	(ZHENG et al., 2020)
	22 (Paediatric)		Mean elevation		(B. Li et al., 2020)
	131		57%		(X. Li et al., 2020)
	85		91.8%	Fatal cases	(Du et al., 2020)
	28		82.1%		(Zhang et al., 2020)
	44		75%		(Yang et al., 2020)
	8 (Paediatric)		75%		(Sun et al., 2020)
	46 959		61.3%		(Y. Cao et al., 2020)
Albumin	29	Increased	51.7%	Clinical characteristics were similar to viral pneumonia	(Chen et al., 2020)
	85	Decreased	78.8%	Fatal cases	(Du et al., 2020)
	28		89.3%		(Zhang et al., 2020)
	44		81.82%		(Yang et al., 2020)

γ-glutamyl transpeptidase(γ-GT)	19-COVID-19 15- Pneumonia	Increased	44.4%	Levels were higher in COVID-19 patients as compared to ones with pneumonia	(Zhao et al., 2020)
α-hydroxybutyric dehydrogenase (α-HBDH).	19-COVID-19 15- Pneumonia	Increased	75%		
Creatinine	20(Paediatric)	Increased	75%		(Xia et al., 2020)
Kinase MB	85		36.5%	Fatal cases	(Du et al., 2020)
	36 (Paediatric)		31%		
Procalcitonin	20(Paediatric)	Increased	80%	Different in the paediatric cases than in the adults	(Xia et al., 2020)
	131		53%		(X. Li et al., 2020)
	102		42.7%	Increase in levels during hospitalization and elevation in non-survivors	(J. Cao et al., 2020)
	36 (Paediatric)		17%		(Qiu et al., 2020)
	44		29.55%		(Yang et al., 2020)
	8 (Paediatric)		75%		(Sun et al., 2020)
Fibrinogen	85	Increased	47.1%	Fatal cases	(Du et al., 2020)
		Decreased	22.4%		
Bilirubin	85	Increased	35.3%		
Blood urea nitrogen	85	Increased	49.4%		
SPO2	69	<90%	20.28%		(Z. Wang et al., 2020)
	234	Decrease		Decreased in patients with severe condition	(Dai et al., 2020)

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