TARGETING PATIENTS WITH PNEUMONIA BY COVID19 THAT COULD BE BENEFICIATED BY COLCHICINE

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Objectives

Primary endpoint: evaluate whether treatment with colchicine reduced the rate of death in COVID-19 hospitalized patients.

Secondary endpoints: length of stay (LOS), differences in response to colchicine according to the total dose, gender and age, inflammatory markers, comorbidities, and concomitant drugs prescribed to treat coronavirus.

Methods

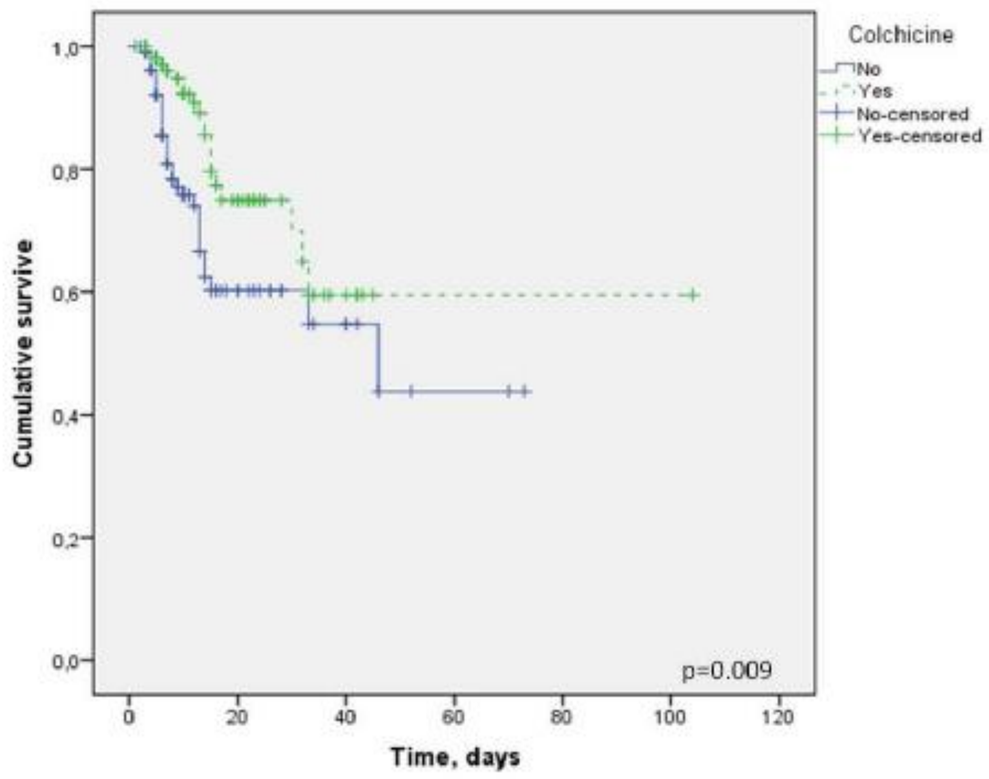
- Real-world, controlled, retrospective study carried out in two tertiary hospitals in Spain.
- Patients (≥ 18 years) hospitalised with a diagnosis of COVID-19 pneumonia from March to June 2020.
- Patients who received colchicine (colchicine group-CG) VS patients who did not (non-colchicine group-NCG). Controls were matched to the CG 1:1 by age (±2 years), sex and severity of the disease.
- Exclusion of COVID-19 patients admitted to critical care units.

Results

PATIENT'S CHARACTERISTICS			
Characteristic	**CG**	**NCG**	**p**
	N=111	**N=111**	
Age, years	81 [66-87]	79 [66-88]	0.978
≥70 years	81 (73)	80 (72.1)	0.880
Males	60/111 (54.1)	56/111 (50.5)	0.591
Comorbidity*	98 (88.3)	99 (89.2)	0.832

*Most frequently: systemic hypertension, diabetes, COPD and cardiovascular disease, with no differences in deaths between both groups

PRIMARY ENDPOINT			
	CG (N=111)	**NCG (N=111)**	**p**
Discharge	77 (70.6%)	92 (82.9%)	**0.031**
Death	32 (29.4%)	19 (17.1%)	



Higher hospital LOS in CG with respect to NCG: 13 [7-20] vs 10 [6-15]; p= 0.019.

SECONDARY ENDPOINTS		Death		p
		CG	**NCG**	
Total dose of colchicine	**≤ 7.5 mg**	8/64 (12.5%)	-	0.132
	> 7.5 mg	11/47 (23.4%)	-	
Age	**≥ 70 years**	17/81 (21%)	31/79 (39.2%)	**0.012**
	< 70 years	2/30 (6.7%)	1/30 (3.3%)	1
Gender	**Males**	9/60 (15%)	14/56 (25%)	0.177
	Females	10/51 (19.6%)	18/53 (34%)	0.099
Inflammatory marker	**Fibrinogen ≥ 450 mg/dL**	15/40 (37.5%)	25/40 (62.5%)	0.057
	D-dimer ≥ 500 ng/mL	16/35 (45.7%)	19/35 (54.3%)	0.167
	CRP ≥ 5 mg/mL	19/50 (38%)	31/50 (62%)	**0.046**
Concomitant treatments	**Hidroxicloroquine**	16/39 (41%)	23/39 (59%)	0.076
	Corticosteroids	12/28 (42.9%)	16/28 (57.1%)	0.096
	Tocilizumab	3/6 (50%)	3/6 (50%)	0.669
	Antibiotic	19/50 (38%)	31/50 (62%)	**0.023**

Almost all patients received antimicrobials (91.9%) concomitantly, mainly azithromycin and ceftriaxone.

Conclusion

I. Colchicine may reduce mortality in COVID-19 hospitalized patients with pneumonia.

II. More RCTs are still needed in order to identify which patients hospitalized for COVID-19 pneumonia may benefit from this safe and inexpensive drug.