Category :**Sepsis/septic shock: management**

A277 - ***Intravenous immunoglobulins decrease the incidence of bacterial secondary infections in severe covid -19 patients.***

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Introduction:

Secondary bacterial infections in Covid-19 patients are associated with increased mortality . So, several guidelines advocate the use of empirical antibiotics for patients with severe Covid-19. The aim of our study was to evaluate the administration of intravenous immunoglobulins(IVIG) combined with antibiotics to decrease the incidence(I)of superinfections in severe Covid 19 patients mechanically ventilated for ARDS.

Methods:

We performed a RCT from january2021 to may 2021. We enrolled 40 patients, 65+12 years old, admitted in a teaching hospital ICU .We randomized 2 groups of 20 patients : A first group receving broad spectrum antibiotics(ANT) and IVIG and a second group(grp) receiving the same antibiotics and placebo(C).IVIG were administered after the first dose of ANT, at a dose of 0.5g/kg at flow of 3ml/kg/h during the first 3 days.
We recorded in the two grps : Sofa score Day 1 and Day 7, Pao2/Fio2day 1 and day 7, duration of mechanical ventilation, ICU stay, hospital length of stay(LOS) , the I of secondary bacterial infections at Day14 and 28day mortality.
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Results:

. In IVIG grp, the mean I of superinfections was less than in the C grp respectively 13.5%VS26%. The I of blood stream infections was reduced in IVIG grp comparatively to C grp respectively 8%vs14.9%. The I of ventilation associated pneumonia was reduced in IVIG grp comparatively to C grp respectively 20%vs 40%. The I of gram+ infections was reduced in IVIG grp comparatively to C grp respectively19%vs 37%. Mean Sofa score day 7 increased in C grp comparatively to IVIG grp respectively 7.33+-0.72vs 4.45+-0.50 $P<0.003$. Pao2/Fio2 at day 7 improved in IVIG grp comparatively to C grp respectively 310.8+-7vs 132.4+-4.5 $p<0.003$.ICU stay (days) was more elevated in C grp comparatively to IVIG grp .respectively 30+-6 vs 18.+-7 $p<0.001$.

Conclusion:

Early initiation of high doses IVIG with ANT decrease the I of superinfections and are associated with better outcome in severe Covid 19 patients .

References:

Liu X et al.. Front Immunol. 11 , 2020.

Image :

	IVIG-ANT	PLACEBO-ANT	P
Mean SOFA SCORE Day7	4.45+-0.5	7.33+-0.72	<0.003
Pao2/Fio2 day 7	310.8+-7	132.4+-4.5	<0.0001
ICU STAY	18+-7	30+-6	<0.001
LOS	40+-12	60+-10	<0.0001
Mean Incidence of surinfections day14	13.5%	26%	
28 Day Mortality	50%	75%	

IVIg vs placebo in severe Covid 19 patients.