

INTRODUCTION

Patients admitted to ICU are particularly susceptible to developing pressure ulcers (PU). These ulcers are due to several risk factors, such as: bed immobilization, the use of vasoactive drugs, sedative and muscle relaxants, which can cause cognitive and sensory perception alterations, as well as metabolic alterations.

During the COVID pandemic, another risk factor was the pronation, manoeuvre required to treat ARDS.

AIM: this study aimed to investigate the incidence of PU in subjects admitted in ICU with a diagnosis of respiratory failure, comparing patients affected or not affected by SARS-COV-2 virus.

METHODS

This is retrospective, observational study. The data were obtained from clinical records notes from 1/09/2020 to 31/12/2022.

RESULTS

The incidence of pressure ulcers between COVID and non-COVID patients was similar, without significant statistical differences.

The most affected body areas were: chin (15%), chest (11%) and sacral area (32%).

Pronate patients had a longer ICU stay and a higher use of vasoactive drugs.

	COVID-19 patients n=77 (37%)	NCOVID-19 patients n=131 (63%)	p.Value
Patients with PU	38 (49%)	60 (46%)	0.697
Number of PU pt.	2 (1-2)	1 (1-2)	0.281
Forehead	5 (6%)	4 (3%)	0.244
Nose	4 (5%)	1 (1%)	0.044
cheekbones	7 (9%)	10 (8%)	0.966
Chin	17 (22%)	13 (10%)	0.023
Lips	12 (16%)	16 (12%)	0.397
Occiput	1 (1%)	0 (0%)	0.191
Chest	9 (12%)	14 (11%)	0.958
Scapulae	3 (4%)	3 (2%)	0.511
Elbows	3 (4%)	2 (2%)	0.292
Abdomen	2 (3%)	0 (0%)	0.045
Iliac crest	0 (0%)	2 (2%)	0.276
Genitals	2 (3%)	8 (6%)	0.621
Sacrum	25 (32%)	42 (32%)	0.957
Glutes	7 (9%)	13 (10%)	0.843
Knees	9 (12%)	8 (6%)	0.158
Tibial plate	2 (3%)	0 (0%)	0.295
Heels	3 (4%)	5 (4%)	0.982
Instep	5 (5%)	3 (2%)	0.135

PU in patients undergone PP were on the face, chest, iliac crests, tibial plate and instep.

Multivariate analysis shows that non-pronation reduces the risk of develop PU and the increasing SAPS score increase the risk of develop PU.

Others risk factors are not statistically relevant.

	Estimate (95% C.I.)	P.value
Pronation (Ref.NO)	-0.92 (-1.64 - -0.27)	0.008
SAPSII (per point increase)	0.07 (0.01- 0.13)	0.034
Noradrenaline (Ref.NO)	-0.48 (-1.43 - 0.37)	0.289
Dobutamine (Ref. NO)	-0.62 (-2.32 - 0.64)	0.378
SOFA Score (per point increase)	0.05 (-0.3 - 0.39)	0.756
COVID (Ref. NO)	0.07 (-0.71 - 0.89)	0.867
ECMO (Ref. NO)	-9.40 (-8.29 - 8.72)	0.890

CONCLUSIONS

The incidence of PU was similar to what is reported in the literature.

We have seen that there is no difference between COVID patients and not COVID. The increased incidence of PU reported in COVID patients is not due to the pathology itself, but to the fact that during the pandemic period there was an increase in ICU admissions, few resources and staff with less experience.

In the pandemic period the incidence of ARDS from COVID-19 increased, requiring pronation. Prone posture itself increases the risk of PU.

Moreover, such maneuver made from little experienced staff, worsens the outcome.