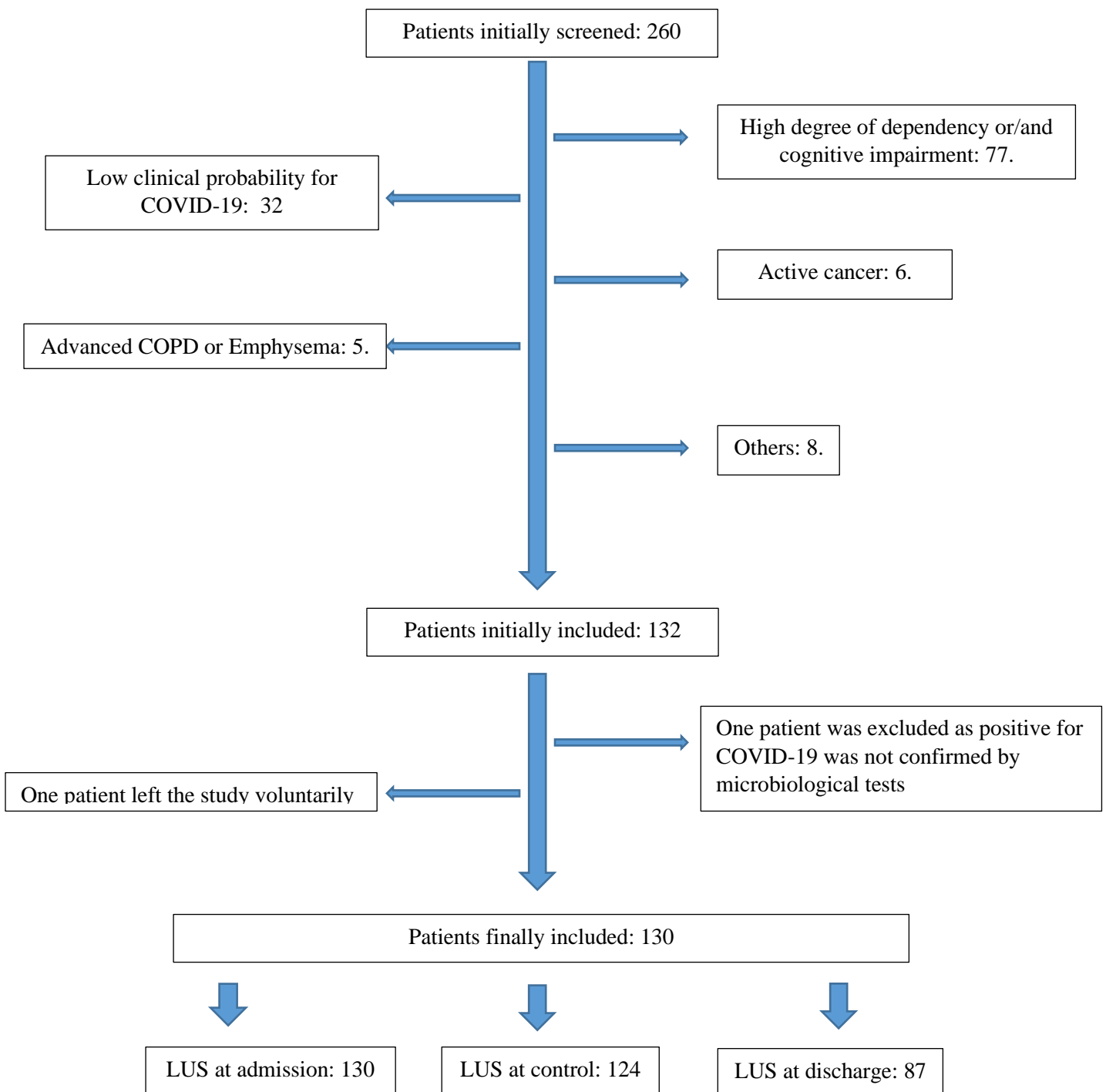


### Supplementary figure S1: Inclusion Flow chart



**Supplementary table S1: Lung ultrasound results by LUZ-score at baseline, control and discharge.**

<b>Variable</b>	<b>BASELINE</b>	<b>CONTROL</b>	<b>DISCHARGE</b>
<b>N</b>	130	124	87
<b>Lung areas (Score [median] / Frequency[%])</b>			
R1	2.0 (55.4)	2.0 (54.8)	1.0 (46.0)
R2	1.5 (41.5)	1.0 (37.9)	0 (23.0)
R3	2.0 (56.2)	2.0 (56.5)	1.0 (37.9)
R4	1.0 (35.4)	1.0 (46.0)	0 (33.3)
R5	2.0 (40.8)	2.0 (40.3)	1.0 (31.0)
R6	3.0 (69.2)	3.0 (67.7)	2.0 (55.2)
L1	2.0 (50)	2.0 (54.8)	1.0 (31.0)
L2	0 (23.1)	0 (25.8)	0 (13.8)
L3	2.0 (58.5)	2.0 (58.1)	2.0 (35.6)
L4	1.0 (40.0)	2.0 (52.4)	0 (33.3)
L5	1.0 (36.9)	1.0 (42.7)	0 (31.0)
L6	3.0 (65.4)	3.0 (64.5)	2.0 (40.2)
<b>Total LUZ Score (points)</b>	21 (10)	20 (11)	13(12)
<b>Total of lung areas affected (n)</b>	9 (3)	9 (4)	7 (5)

*Continuous variables are expressed as mean  $\pm$  standard deviation or median (interquartile range).*

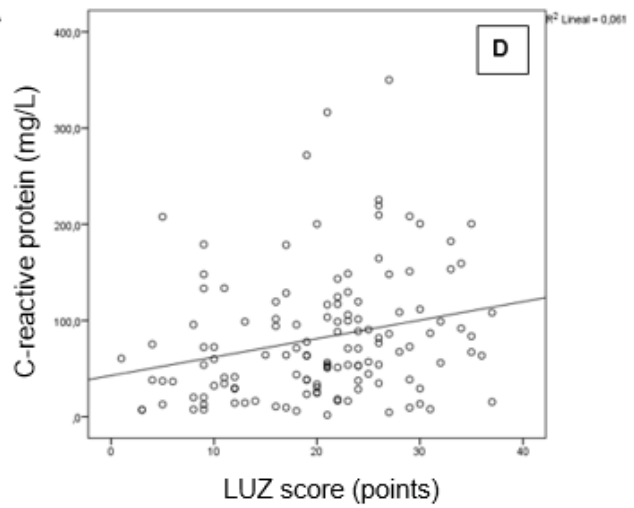
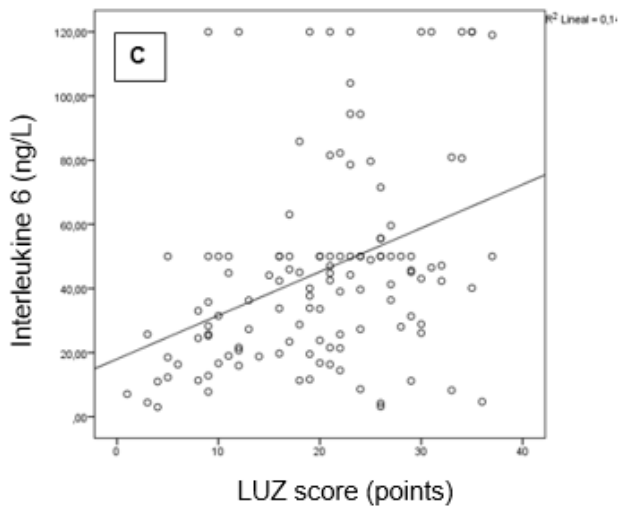
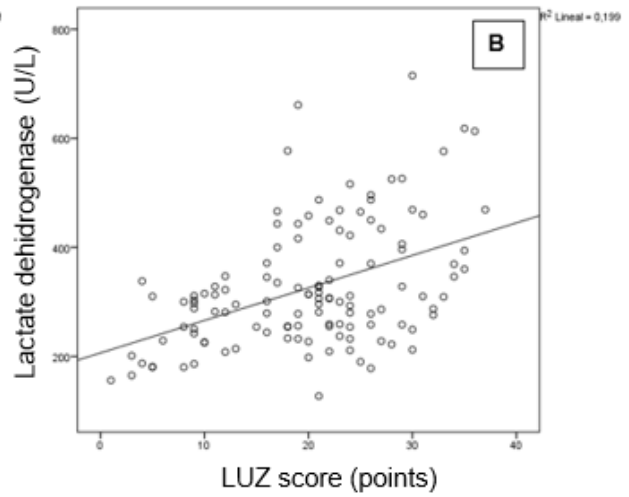
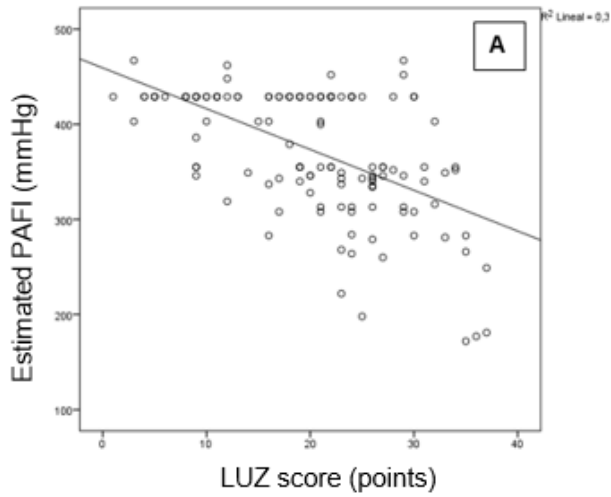
*R1: right antero-superior area; R2: right antero-inferior area; R3: upper and right lateral area; R4: lower and right lateral area; R5: right postero-superior area; R6: right postero-inferior area. L1: left antero-superior area; L2: left antero-inferior area; L3: upper and left lateral area; L4: lower and right lateral area; L5: left postero-superior area; L6: left postero-inferior area.*

**Supplementary table S2: Correlation analysis between the LUCOZ score at admission and clinical and analytical variables at admission.**

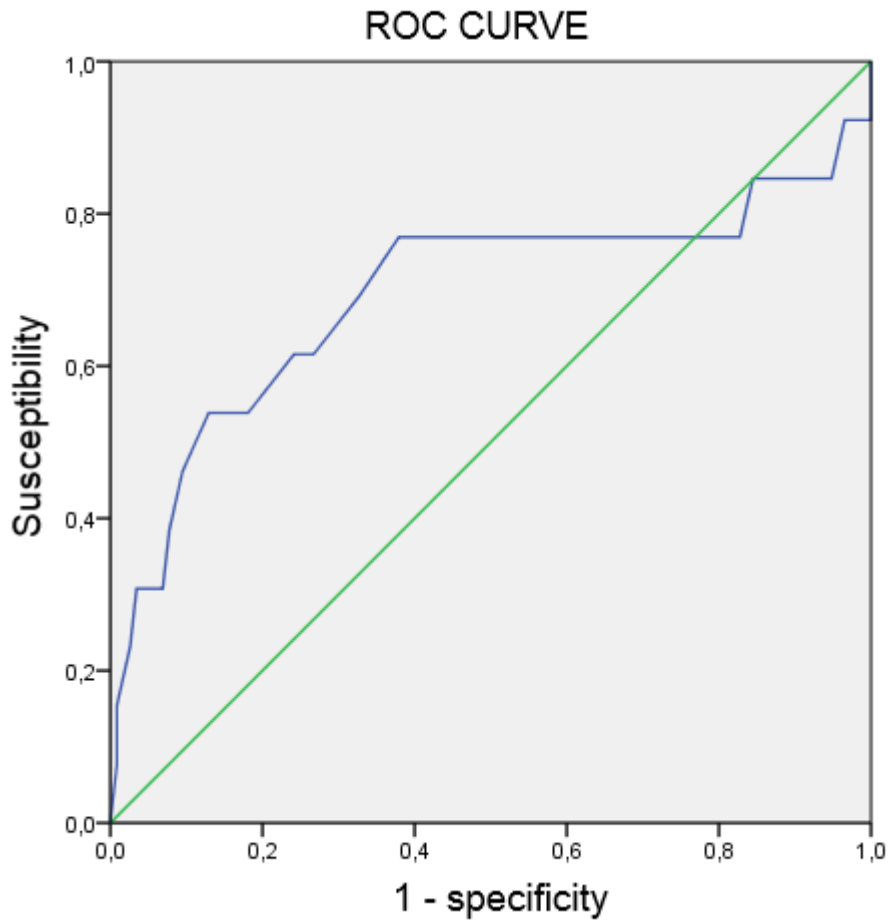
<b>Variable</b>	<b>Rho Spearman</b>	<b>P-value</b>
BMI (Kgs/m <sup>2</sup> )	-0.113	0.253
SBP (mmHg)	-0.055	0.536
DBP (mmHg)	0.077	0.383
Hr (B.p.s.)	0.197	<b>0.025</b>
ePAFI (mmHg)	-0.516	<b>&lt;0.001</b>
Creatinine (mg/dL)	-0.165	0.060
Reactive C-protein (mg/L)	0.286	<b>0.001</b>
Aspartate transaminase (U/L)	0.180	<b>0.046</b>
Lactate dehydrogenase (U/L)	0.395	<b>&lt;0.001</b>
Creatinine Kinase (U/L)	-0.062	0.515
Ferritin (ng/mL)	0.134	0.133
Total leucocytes (x 1000)	-0.005	0.157
Total linfocytes (x 1000)	-0.152	0.086
D-Dimer (ng/mL)	0.157	0.078
IL-6 (pg/mL)	0.383	<b>&lt;0.001</b>
Borg Scale (points)	0.228	<b>0.009</b>
Hemoglobine (g/dL)	-0.028	0.750

BMI: Body Mass index; DBP: Diastolic Blood Pressure; IL: Interleukine; SBP: Systolic Blood Pressure.

**Supplementary figure S2: Correlation graphs between the LUZ score on admission and A) PAFI; B) Lactate dehydrogenase; C) Interleukine-6 and D) C-Reactive Protein.**

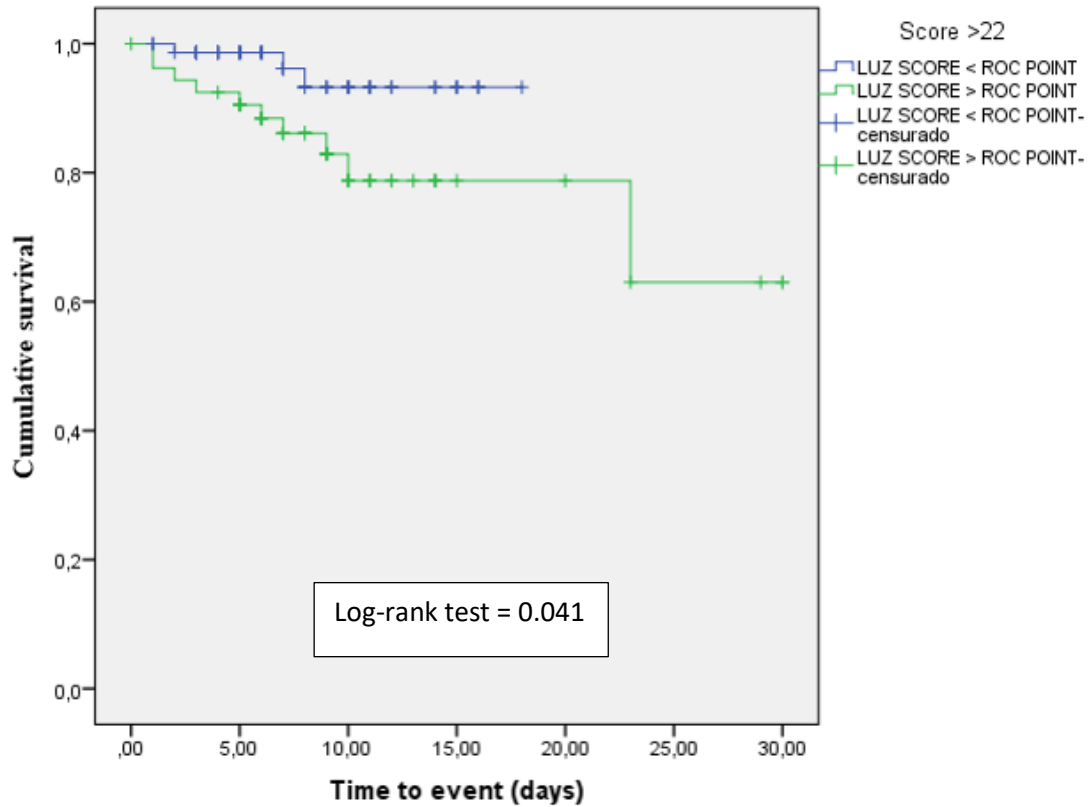


**Supplementary figure S3: ROC curve for the primary composite end-point by LUZ-score at baseline.**



LUZ score cut-off for primary outcome: 22.5 points (S= 76.9%; E=62.1%; AUC: 0.693; p=0.023)

**Supplementary Figure S4: Survival Kaplan-Meier curves for the composite primary end-point (ICU admission and/or all-cause mortality) by LUZ-score at baseline (higher point of Sensitivity and 1-Specificity).**



	0	5	10	15	20	25	30
LUZ score ≤ ROC point (≤ 22 points)	75	47	17	4	0	0	0
LUZ score > ROC point (> 22 points)	55	44	17	7	6	3	0

Number at risk

**Supplementary table S3: Univariable and multivariable logistic regression analysis  
for the primary composite end-point.**

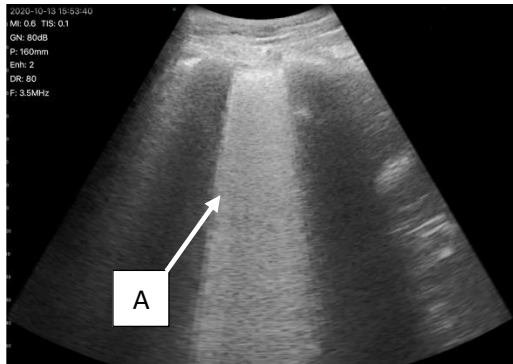
UNIVARIABLE			MULTIVARIABLE	
Variable	HR (IC 95%)	P-Value	HR (IC 95%)	P-Value
<b>Age</b>	1.02 (0.97–1.06)	0.351	1.03 (0.97 – 1.10)	0.287
<b>Gender-Male</b>	1.02 (0.31 – 3.32)	0.970		
<b>Duration of symptom (days )</b>	1.00 (0.94 – 1.07)	0.875		
<b>Comorbidities (if present)</b>				
• Hypertension	1.98 (0.62 – 6.27)	0.246		
• Heart failure	0	0.999		
• Dyslipidemia*	2.35 (0.73 – 7.53)	0.151	1.53 (0.32 – 7.20)	0.586
• Coronary artery disease	2.33 (0.24 – 22.6)	0.465		
• Diabetes*	2.42 (0.67 – 8.70)	0.176	0.99 (0.15 – 6.44)	0.992
• History of smoking	1.44 (0.44 – 4.73)	0.542		
• COPD/Asthma	1.73 (0.34 – 8.85)	0.507		
• Atrial/flutter fibrillation	2.33 (0.24 – 22.60)	0.465		
• CKD	0	0.999		
<b>Clinical variables</b>				
• BMI	1.05 (0.95 – 1.16)	0.320		
• SBP	1.01 (0.97 – 1.04)	0.516		
• DBP	0.99 ( 0.94 – 1.04)	0.759		
• HR	1.01 (0.97 – 1.06)	0.499		
• Estimated PAFI*	0.99 (0.98 – 0.99)	<b>0.027</b>	0.99 (0.98 – 1.00)	0.640
• Dyspnea Borg scale	1.06 (0.85 – 1.3)	0.592		
• Oxygen_saturation				
<b>Laboratory</b>				
• Urea	0.99 (0.96 – 1.02)	0.619		
• Creatinine	2.43 (0.51 – 11.47)	0.260		
• Aspartase transaminase	0.98 (0.95 – 1.01)	0.259		
• Alanin transaminase	0.97 (0.94 –1.01)	0.204		
• Creatin phosphokinase*	1.00 (1.00-1.00)	0.098	1.00 (0.99 – 1.00)	0.109
• Lactate deshidrogenase	1.00 (0.99 – 1.00)	0.539		
• C-Reactive protein	1.00 (0.99 –1.00)	0.959		
• Ferritin	1.00 (0.99 – 1.00)	0.329		
• Hemoglobin	0.84 (0.58 – 1.23)	0.391		
• Total of leucocytes	1.03 (0.92 – 1.15)	0.529		
• Total of lymphocytes*	1.06 (0.97 – 1.17)	0.175	1.03 (0.92 – 1.15)	0.563
• D-Dimer	1.00 (0.99 – 1.00)	0.586		
• Fibrinogen	1.00 (0.99 – 1.00)	0.779		
• Interleukine-6	1.00 (0.98 – 1.02)	0.475		
<b>Lung ultrasound analysis</b>				
LUZ baseline score*	5.45 (1.42 – 20.90)	<b>0.013</b>	5.25 (0.84 – 32.84)	<b>0.038**</b>

\*Candidate variables finally included in the multivariable logistic regression model.

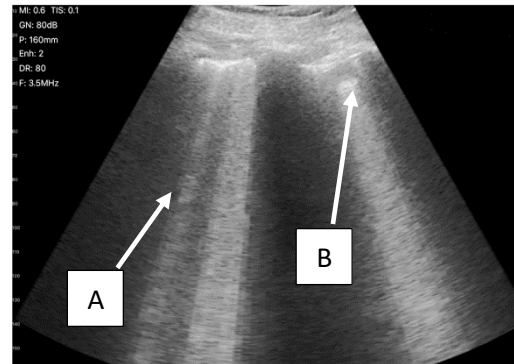
\*\*After a bootstrap of 1000 replicates.

**Supplementary figure S5:** LUS findings between: A) Patient with needed for mechanical ventilation after 24 hours of admission and B) Patient with good evolution and fast discharge after 72 hours of admission.

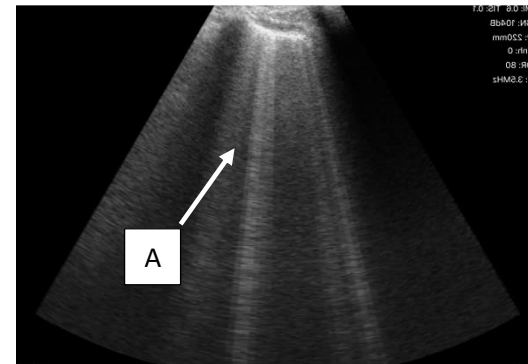
A) Pictures corresponding to three of the twelve lung areas explored. Patient showed advanced findings (Sun rays/waterfall patterns and one subpleural consolidation in the left lower posterior quadrant. Total LUZ-score= 28 points). After 24 hours of admission, acute respiratory failure developed (Estimated PAFI < 200) and admission to the ICU for mechanical ventilation was needed.



Waterfall sign (A) observed at lower left lateral quadrant.



Sun rays pattern (A) and subpleural consolidation (B) observed at left lower and posterior quadrant



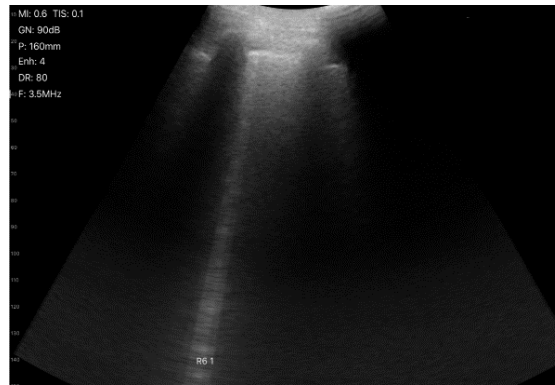
Sun rays pattern (A) observed at right lower and posterior quadrant



B) Pictures corresponding to two of the twelve lung areas explored. LUS did not detect advanced findings of viral pneumonia (LUZ score=5) and patient was admitted for supervision. After 72 hours, patient was discharged without any sign of respiratory complication.



Normal A lines observed.



Isolated "b" line (starting pattern) observed at right lower and posterior quadrant.