

IMAGE OF THE MONTH

Flash card Lung Ultrasound and COVID-19[☆]

Guía básica ecografía pulmonar y COVID-19

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Lung ultrasound is fast becoming a first-line tool in the diagnosis and monitoring of patients with COVID-19, and is increasingly used by less experienced professionals. We developed a flash card in which we simply and briefly describe the areas of exploration

and images most frequently found in pulmonary ultrasound.

The card also includes the most characteristics ultrasound findings in COVID-19 patients, based on articles published so far in the literature (Fig. 1–4)

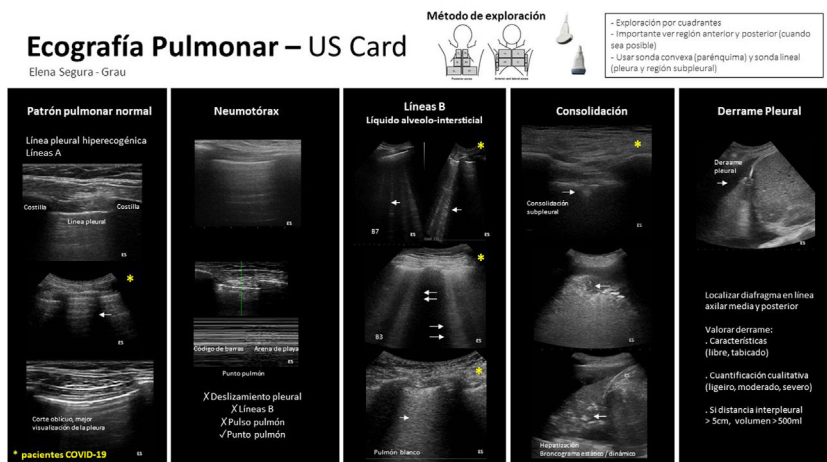


Fig. 1

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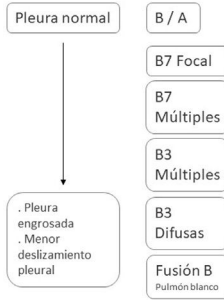
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Ecografía Pulmonar / COVID - 19

Elena Segura - Grau

Alteraciones dinámicas ecografía pulmonar



B7- distancia 7 mm; B3- distancia 3mm
 *Grupo Chino de Estudio Ultrasonografía Clínica

Pogresión de la enfermedad

Ecografía Pulmonar	TAC Torácico
Línea pleural engrosada e irregular	Pleura engrosada
Líneas B	Vidro esmerilado
Líneas difusas y confluentes	Infiltrados pulmonares
Consolidaciones subpleurales	Consolidación subpleural
Consolidación translobar y no translobar	Consolidación translobar
Distribución multilobar	Afectación de más de dos lóbulos

*Findings of lung ultrasonography of novel corona virus pneumonia during the 2019 - 2020 epidemic. Intensive Care Med. 2020. Peng QY, Wang XT, Zhang LN; Chinese Critical Care Ultrasound Study Group.

Fig. 2

LUS- US Card

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Scan technique



- Quadrant evaluation
- Important: scan in anterior and posterior areas
- Use Convex (parenchyma) and Linear (pleural and subpleural region) probe

Normal lung US

Pleura line - hyperechoic
A lines

Oblique scan, better visualization of pleura line

* patients COVID-19

Pneumothorax

Long point

X Lung sliding
X B lines
X Lung Pulse
✓ Lung Point

B Lines
Alveolar-interstitial fluid

White lung

Consolidation

Subpleural Consolidation

Hepatoportal static / diaphragm/echogram

Pleura Effusion

Search diaphragm mid and posterior axillary line

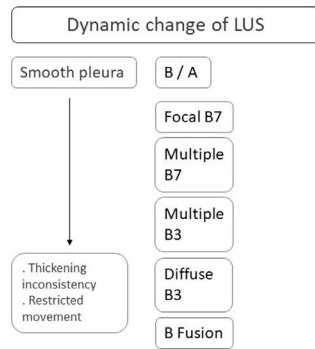
Evaluate pleura effusion...

- Characteristics (nonseptated, septated)
- Qualitative-quantification (small, moderate, large)
- Interpleural distance > 3cm, volume > 500ml

Fig. 3

LUS / COVID - 19

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B7- distance 7 mm; B3- distance 3mm
*Chinese Critical Ultrasound Study Group

Disease progression

Lung Ultrasound	Lung CT
Thickened and irregular pleura line	Thickened pleura
B lines, multifocal	Ground glass shadow
B lines, confluent and diffuse	Pulmonary infiltrates
Subpleural consolidations	Subpleural consolidation
Translobar and no-translobar consolidation	Translobar consolidation
Multilobar distribution	> 2 lobes affected

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Fig. 4

Acknowledgements

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