

MEETING ABSTRACT

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The role of lung ultrasound in the diagnosis of pneumonia in acutely ill patients

M Biancardi^{1*}, B D'Agostino¹, C Bonfardeci²

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Background

The differential diagnosis of patients in the emergency department who show symptoms of sepsis and suspected pneumonia may be difficult because of the low sensitivity and specificity of supine chest X rays (SCXR) and physical examination.

Objective

A retrospective assessment of the usefulness of lung ultrasound (LU) in the diagnosis of pneumonia in patients with signs and symptoms of sepsis and respiratory disease.

Patients and methods

2 groups of patients were considered:

Group A: 22 patients with a positive first SCXR (SCXR1) for pneumonia

Group B: 18 patients with a negative SCXR1 for pneumonia, but who were subsequently diagnosed with pneumonia during their hospital stay following a second SCXR (SCXR2) or CT.

Lung ultrasound examination was performed within 24 hours of admission, searching for direct and indirect echographical signs of pneumonia: focal B lines (FBL), pleural effusion (PE) and images of lung consolidation (LC).

Results

See table 1.

Conclusions

In our observational study, LU showed high sensitivity in the diagnosis of pneumonia:

95% in patients already diagnosed using SCXR, and 100 % of early diagnosis of pneumonia in patients whose diagnosis was subsequently confirmed during hospitalization.

Table 1

	Group A (%)	Group B (%)
Male/Female	11/11	7/11
MEAN AGE	74,8	76,8
SCXR1 pos	22	0
SCXR2 or CT pos	-	18
FBL pos	9 (41)	10 (50)
FBL neg	13 (59)	10 (50)
PE pos	17 (78)	16 (80)
PE neg	5(22)	4 (20)
LC pos	19 (87)	20(100)
LC neg	3 (13)	0 (0)
LC pos or FBL pos	21 (95)	-
LU impact on therapy	No	20 (100)

Authors' details

¹Medicina 1 dept, Ospedale San Carlo Borromeo, Milano, Italy. ²Medicina d' Urgenza, Ospedale San Carlo Borromeo, Milano, Italy.

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* Correspondence: marco.biancardi@katamail.com

¹Medicina 1 dept, Ospedale San Carlo Borromeo, Milano, Italy

Full list of author information is available at the end of the article