CHEST

Editor's Note: Authors are invited to respond to Correspondence that cites their previously published work. Those responses appear after the related letter. In cases where there is no response, the author of the original article declined to respond or did not reply to our invitation.

Clinical Data Are Essential to Validate Lung Ultrasound

To the Editor:

We read with great attention the article by Liu et al[1] in a recent issue of *CHEST* (May 2016) regarding ultrasound diagnostic criteria of transient tachypnea of the neonate (TTN). It is an unmasked, retrospective series by a single ultrasonographer that reaches conclusions different from what had been previously described.[2-5] Liu et al show that no ultrasound picture is unique to TTN and basically not distiguishable from respiratory distress syndrome (RDS). They also allude to a different ultrasound appearance between the acute vs the convalescent patient with TTN. Although some degree of overlapping is acknowledged, TTN and RDS are different diseases. The former results from delayed clearing of lung fluid, particularly frequent in late preterm infants. The latter is due to deficient surfactant production, a common feature of significant prematurity.

We are concerned that the important diagnostic statements made by Liu et al[1] regarding common and potentially harmful diseases do not include appropriate and extensive references to clinical data. The investigators do not report the general clinical characteristics nor do they report on the evolution of infants with TTN. No definition of RDS is given, and it is unclear how many infants received endotracheal surfactant. The patient allocation process is not described, which is a crucial step to correctly investigate diagnostic accuracy.

At ultrasound, all infants in both groups present with an abnormal pleural line and A-line disappearance.[1] Lacking a clear reference to gestational age, there is a substantial chance that some premature infants had RDS rather than TTN. Similarly, no difference on severe vs mild (or acute vs healing) TTN can be stated without clinical (eg, Silverman score) or blood gases criteria.

Although Liu et al[1] are to be commended for their attempt to promote a noninvasive and radiation-free technique such as lung ultrasound, we urge caution when essential methodology is neglected. The issue of TTN ultrasound diagnosis deserves an appropriately powered, prospective, multicenter study with a sound correlation between ultrasound and clinical data.

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On behalf of NeoLUS, an international, collaborative group on Lung Ultrasound on the Neonate and Small Infant (Bedside-lung-ultrasound-for-the-neonate-and-small infant/1546519678896741; https://www.facebook.com/groups/1493243264284547).

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DOI: http://dx.doi.org/10.1016/j.chest.2016.02.685

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Response

To the Editor:

We thank Raimondi et al for their attention and insightful comments in response to our recent publication[1] describing how ultrasound is used to diagnose transient