“Open Questions” and Role of Lung Ultrasound in the Management of Congenital Chylothorax

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Dear Editor,

As neonatologists we read with interest the systematic analysis by Resch et al. [1] about the treatment strategies available for congenital chylothorax (CCT), finding this topic clinically relevant. In the last 3 years, we admitted 10 patients with a diagnosis of CCT in our neonatal intensive care unit (NICU), and we strongly believe that a standardized protocol can be useful and safe for CCT management.

In particular, we would like to focus the attention on two “open questions”: (a) the duration of medium chain triglyceride (MCT) diet, (b) the indication for octreotide treatment.

Regarding the former, to our knowledge there are no univocal indications on the duration of the MCT diet in the literature.

Resch et al. [1] propose to continue the MCT diet until full enteral feeding (FEF) is reached, while other authors suggest different durations (from 2 to 6 weeks from the removal of chest drains [2–5]). Furthermore, lung ultrasound (LUS) is a useful technique in the diagnosis, the grading and the treatment choices (invasive versus non-invasive) of pleural effusions, as recently described by Rocha et al. [5].

In our NICU we use LUS in the monitoring and follow-up of CCT, evaluating the pleural effusion at the bedside.

We use the following 3 criteria to reintroduce breast milk or formula: (a) at least 2 weeks of MCT diet, (b) MCT FEF reached and (c) the absence of LUS signs of pleural effusion. This practice could lead to a shorter duration of the MCT diet (in our population: mean 29 days, range 10–46 days).

As for the second open question that we would like to underline, the indications for octreotide treatment are not standardized. In the recent approach proposed by Rocha et al. [5], the treatment is started from the beginning together with nutritional measures. Other authors introduce octreotide as a second-line treatment [6]. The algorithm of Resch et al. [1] considers octreotide treatment starting from week 5 or 6 in case of failure of the MCT diet. This is in line with the findings of a recent systematic review [6]. The use itself of this medication is not risk free, and we should consider the risk/benefit ratio and any possible side effect (such as hyperglycemia, elevation of liver enzymes, hypothyroidism, pulmonary hypertension, necrotizing enterocolitis) treating a newborn, especially if preterm. In our NICU we use octreo-

tide in severe cases of CCT not responding to nutritional measures.

In conclusion, we have really appreciated the practical implications of the analysis by Resch et al., and we hope that a standardized nutritional and medical approach to CCT will be shared soon. We think that clinicians and researchers should focus their efforts on the definition of a common pathway for this rare but life-threatening condition. In particular, we strongly believe that the use of LUS should be considered not only for the diagnosis, but also in the monitoring and follow-up of these newborns, helping to reduce the administration of the MCT diet and the duration of hospitalization and to introduce maternal breast milk as soon as possible.

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Conflict of Interest Statement

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Author Contributions

A.P. conceptualized and designed the letter, M.T. critically reviewed the manuscript, G.V. critically reviewed the manuscript and approved the final version, A.S. and M.L.P. interpreted the data and drafted the initial manuscript, G.S. collected the data.