

In reply to ‘‘The thumbs angle used in the novel infant chest compression technique (nTTT) can influence the quality parameters of resuscitation’’



En respuesta a ‘‘El ángulo de los pulgares utilizado en la nueva técnica de compresión de tórax infantil (nTTT) puede influir en los parámetros de calidad de la reanimación’’

Dear Editor,

Firstly, we would like to thank Dr. Szarpak and Dr. Smereka for their thoughtful letter.¹ The objective of our preliminary study was to carry out a small scale non-inferiority test² to assess the novel method of chest compressions in infants (nTTT) previously described by the authors' team.³ Having in mind the current worldwide recommendations for chest compressions in infants we opted by this ‘‘conservative (first do not harm) hypothesis’’ as a first step in the way to test superiority of the new technique.

As we have discussed, our study demonstrated non-inferiority of the nTTT when compared to the currently recommended two-thumb encircling hands technique (TTHT) applied by healthcare professionals who, although they have been trained and had previously demonstrated their ability to apply TTHT, practically did not know the nTTT (only 5 min of explanation and another 5 min of hands-on practice) at the time of the study.² These results suggest us that if the participants had been similarly trained with both techniques, a clear advantage of nTTT might be expected.

We also think that nTTT currently is more than a promising pediatric resuscitation technique and that it should be explored not only in its original form (‘‘using two thumbs directed at the angle of 90° to the chest while closing the fingers of both hands in a fist’’)³ but also in its possible variants (natural variability). In this sense, we were glad to read the recently published paper by Ruetzler K, et al.⁴ analyzing how the angle of thumbs during chest compressions with nTTT (45° vs. 90°) could influence the resuscitation quality parameters. According to such results we consider that further research in this field is rational, in order to obtain new evidences that could contribute to improve the chest compressions quality delivered to infants both by bystanders as well as by well-trained professionals with duty to assist.

Once again we would like to congratulate Drs. Smereka and Szarpak for their contribution to the innovation in the field of pediatric life support.

References

1. Szarpaka L, Smerekab J, Ladnyc JR, Ruetzler K. The thumbs angle used in the novel infant chest compression technique (new two-thumb technique, nTTT) can influence the quality parameters of resuscitation. *Med Intensiva*. 2018, <http://dx.doi.org/10.1016/j.medin.2018.09.008>.
2. Rodríguez-Ruiz E, Guerra Martín V, Abelairas-Gómez C, Sampedro Vidal F, Gómez González C, Barcala-Furelos R, et al. A new chest compression technique in infants. *Med Intensiva*. 2018, <http://dx.doi.org/10.1016/j.medin.2018.04.010>, pii: S0210-5691(18)30154-2.
3. Smereka J, Szarpak L, Smereka A, Leung S, Ruetzler K. Evaluation of new two-thumb chest compression technique for infant CPR performed by novice physicians. A randomized, crossover, manikin trial. *Am J Emerg Med*. 2017;35:604–9, <http://dx.doi.org/10.1016/j.ajem.2016.12.045>.
4. Ruetzler K, Smereka J, Szarpak L, Czekajlo M. Novel method of infant chest compression. Does the arrangement of the thumbs matter? *Am J Emerg Med*. 2018, <http://dx.doi.org/10.1016/j.ajem.2018.08.030> [Ahead of print].

E. Rodríguez-Ruiz^{a,b,*}, A. Rodríguez-Nuñez^{b,c,d}

^a *Servicio de Medicina Intensiva, Hospital Clínico Universitario de Santiago de Compostela, SERGAS, Universidad de Santiago de Compostela, Santiago de Compostela, A Coruña, Spain*

^b *Grupos de investigación CLINURSID, de la Universidad de Santiago de Compostela y Soporte Vital y Simulación del Instituto de Investigación de Santiago (IDIS), Santiago de Compostela, Spain*

^c *Unidad de Cuidados Intensivos Pediátricos, Hospital Clínico Universitario de Santiago de Compostela, SERGAS, Universidad de Santiago de Compostela, Santiago de Compostela, A Coruña, Spain*

^d *Red de Salud Materno-Infantil SAMID-III, Instituto de Salud Carlos III, Madrid, Spain*

* Corresponding author.

E-mail address: r.ruizemilio@gmail.com (E. Rodríguez-Ruiz). 2173-5727/

© 2018 Elsevier España, S.L.U. and SEMICYUC. All rights reserved.