

believe that communication through the use of photographs, videos, and interviews are more effective. Therefore, it is not possible to extrapolate the results obtained to the native community in general.

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Increasing thrombolysis rate in acute ischemic stroke using a mobile instant messaging application: experience from a developing country

Dear editor: Thrombolytic therapy with recombinant tissue plasminogen activator (rt-PA) improves functional outcomes in stroke, but its use requires an accurate patient selection to increase post-stroke functional improvement. In our country, trained physicians for rt-PA use are few. In our Hospital (*Hospital Universitario José Eleuterio González*), rt-PA is applied by the emergency medical team (EMT) made up primarily of residence in training with little experience in rt-PA use. The process involved the communication of every patient to the stroke specialists (SPs) using phone calls, which subsequently had to authorize its use, leading to low rates of rt-PA use. We created a chat in WhatsApp (WhatsApp, California, USA) between SPs and the EMT in July 2016. Within, stroke patients are presented with their CT / MR image. We evaluated the effect of this stroke chat on rt-PA use, door

to needle times (DTN), and length of stay (LOS). We obtained data from an ongoing stroke registry. Patients with ischemic stroke admitted between January 2015 to December 2017 were included. Data were divided into two periods: pre (January 2015 – June 2016) and post (July 2016 – December 2017) use of the stroke chat. We used logistic regression for testing rt-PA use proportions, and linear regression for DTN and LOS. P-values <0.05 were considered statistically significant. 634 patients were included, 50.2% and 49.8% from pre- and post-periods, respectively (table I). rt-PA use increased from 2.83% in the pre-period to 8.86% in the post-period. Both LOS (5.1±4.4 vs 6.3±4.8) and DTN (102±54 vs 142±65.5) increased in the post-period, but DTN increase was not statistically significant. The increase of rt-PA use is in line with a previous report.¹ This could be the result of improved coordination within the EMT to use rt-PA and reassurance by the SPs. In other words, SPs may improve the sense of safety of the EMT to use rt-PA. We also found an increase in LOS by 1.2 days. This is likely the result of a more robust patient evaluation promoted by SPs. Although WhatsApp could improve stroke care with no costs, data pri-

Table I
CHARACTERISTICS OF STROKE PATIENTS.
MONTERREY, NUEVO LEÓN, MÉXICO, 2020

Characteristics	Pre-WhatsApp (n=318) No. (%)	Post-WhatsApp (n=316) No. (%)	OR Or B	IC95%	P
Age (mean±SD)	63 ± 14.36	58.9 ± 16.46	-	-	0.004
Male	192 (60.37)	187 (59.17)	-	-	0.758
Number of thrombolysis	9 (2.83)	28 (8.86)	3.39	1.56-7.36	.002*
Hospital Stay Length (days) (SD)	5.1 ± 4.4	6.3 ± 4.8	1.15	.40-1.90	.003*
Door-to-needle time (SD) thrombolysis patients	102.25 ± 54.63	154.88 ± 70.60	47.09	-14.08-108.27	1.24

Models were adjusted for age and sex. All Analyses were performed in SPSS v24.0.

* p value <0.05.

SD: Standard deviation.

vacy concerns need to be considered.² Martins and colleagues showed the utility of an app with similar characteristics to WhatsApp, which complies with the current regulations.³ These apps could close the gap that exists in stroke treatment due to the lack of SPs. In conclusion, WhatsApp is a cheap solution to improve stroke management. Our clinic will move to use other apps with full compliance with data privacy protection. In the meantime, patients continue to benefit from thrombolysis treatment.

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La inmersión en agua como alivio del dolor durante el trabajo de parto

Señor editor: La inmersión en agua o hidroterapia como método para aliviar el dolor durante el parto está actualmente muy expandido entre los centros de maternidad y hospitales de todo el mundo. La evidencia científica avala la seguridad y los beneficios de su uso durante el parto ya que puede reducir el dolor percibido, aumentar la movilidad materna e incrementar la satisfacción durante el trabajo de parto.¹

Se han realizado numerosos estudios sobre el tema, pero aún no existe un consenso sobre los diversos efectos y resultados del recién nacido y del parto. Actualmente los resultados materno-infantiles del uso de la hidroterapia durante el parto están en discusión, pero cada vez más estudios de buena calidad apuntan a que no existen resultados adversos en el recién nacido en los partos de bajo riesgo y sin complicaciones.

Se ha sugerido un mayor riesgo de infecciones maternas y neonatales,² sin embargo, varios autores no han encontrado diferencias significativas en la tasa de infecciones.^{1,3,4} Zanetti-Dällenbach y colaboradores⁴ incluso concluyeron que el uso de la hidroterapia durante el parto es seguro también para las gestantes portadoras de estreptococos del grupo B. Además, la hidroterapia durante el parto no parece afectar a las puntuaciones de la prueba de Apgar.^{1,3-5}

En relación con los resultados del parto, la mayoría finaliza de forma espontánea, sobre todo en nulíparas.⁶ El estudio de Liu y colaboradores asoció la hidroterapia durante el parto con una menor tasa de cesáreas.⁵ Con respecto a las lesiones perineales, la tasa de episiotomías es baja.^{3,4,6} En parte, esto último puede ser debido a que la hidroterapia reduce la ansiedad y

disminuye la liberación de catecolaminas, lo que aumenta la liberación de endorfinas y mejora la circulación materna durante todo el proceso del parto.⁵ También reduce el uso de la analgesia epidural para aliviar el dolor.¹ La hidroterapia durante el parto puede ser una alternativa segura en el alivio del dolor en partos de bajo riesgo y sin complicaciones, por lo que las maternidades deberían ofrecer este método de alivio del dolor.

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