Cerebrovasc Dis 2008;26:210

DOI: [10.1159/000145331](https://doi.org/10.1159/000145331)

Blood Pressure in Acute Stroke

Hanne Christensen

Department of Neurology, Bispebjerg Hospital, University of
Copenhagen, Copenhagen, Denmark

Dear Sir,

I have read with great interest the paper by Wong et al. [1] concerning the blood pressure course in acute stroke in 156 patients.

In the study by Wong et al., patients were recruited within 48 h of stroke onset or, if the time of stroke onset was unknown, the time of noticing the stroke symptoms.

The blood pressure course was analysed by a mixed-effects model based on the serial measurements with the time of stroke onset or noticing the stroke symptoms as t_0 ; t_0 was selected by the authors' choice and not based on exploration of the data. The authors report a linear fall of the systolic and diastolic blood pressure within the first 48 h after stroke onset/noticing the stroke symptoms.

In the paper, data on the mean time from stroke onset to inclusion as well as the patients with unknown time from stroke onset to admission that were included in the study are missing and should be provided, as these may have affected the results. How were the blood pressure values from before admission treated in the model?

Could a blood pressure drop on admission in patients recruited with varying delays from stroke onset to admission with a 48-hour time window after having/noticing a stroke not create a similar linear decrease within 48 h as described by Wong et al.?

Further, I would like to correct the reference to our paper [2]. We studied 1,192 patients admitted within 6 h of stroke onset, 50% within 2 h of stroke onset, and the blood pressure was measured every 2 h in the first 24 h, every 4 h in the following 48 h, then daily up to day 7 and after 3 months. We did not use regression analysis in describing the blood pressure course; we just presented the means in error bar plots after confirming the previous finding of Carlberg et al. [3] that the blood pressure correlated with the time of admission and not the time of stroke onset.

It is my hope that this letter will contribute further to the exploration of the interesting field of blood pressure in acute stroke.

References

- 1 Wong AA, Davis JP, Schluter PJ, Henderson RD, O'Sullivan JD, Read SJ: The time course and determinants of blood pressure within the first 48 h after ischemic stroke. *Cerebrovasc Dis* 2007;24:426–433.
- 2 Christensen H, Meden P, Overgaard K, Boysen G: The course of blood pressure in acute stroke is related to the severity of the neurological deficits. *Acta Neurol Scand* 2002;106:142–147.
- 3 Carlberg B, Asplund K, Hägg E: Factors influencing admission blood pressure levels in patients with acute stroke. *Stroke* 1991;22:527–530.

Hanne Christensen, MD, PhD, DMSci
Department of Neurology, Bispebjerg Hospital
University of Copenhagen
DK-2400 Copenhagen NV (Denmark)
E-Mail Hc04@bbh.regionh.dk