Intracerebral hemorrhage burden in Japan: Results from the Japan Stroke Data Bank

Shoichiro Sato[1], Kazutaka Sonoda[1], Fumiaki Nakamura[2], Yusuke Sasahara[2], Masatoshi Koga[3], Michikazu Nakai[2], Kunihiro Nishimura[2], Toshiaki Shishido[2], Yoshihiro Miyamoto[2], Kazunori Toyoda[1], Shotai Kobayashi[4], Kazuo Minematsu[1] on behalf of the Japan Stroke Data Bank Investigators

Department of Cerebrovascular Medicine[1],
Center for Cerebral and Cardiovascular Disease Information[2],
and Division of Stroke Care Unit[3],
National Cerebral and Cardiovascular Center, Osaka, Japan; Shimane University[4], Matsue, Japan

Disclosures

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Background and Purpose

- Significant advances have been made for treatment of acute ischemic stroke (IS), including thrombolysis and endovascular thrombectomy over the past two decades, whereas there has been no established treatment for acute intracerebral hemorrhage (ICH) equivalent to reperfusion therapy for IS.

  Schreuder FH, Sato S, Klijn CJ, Anderson CS. J Neurol Neurosurg Psychiatry 2017

- Limited data are available on secular trends in demographics, severity, and outcome among patients with IS and ICH treated in Japanese stroke centers, and therefore we aimed to obtain those.

Methods

- Data Source: data from the Japan Stroke Data Bank (JSDB), which was launched in 2001 with data collection on patients admitted to 100+ regional stroke centers across Japan.

Kobayashi S. Am J Prev Med 2006

- Case Selection: we extracted all patients with a primary diagnosis of ICH and IS who hospitalized within 30 days from onset.
- Statistical analysis: we evaluated yearly trends in age of onset, and National Institutes of Health Stroke Scale (NIHSS) on admission using nonparametric trend test; and multivariable-adjusted trends in death or disability (modified Rankin Scale 3 to 6) at discharge and in-hospital death (mRS 6) using logistic regression models.

Results

- Characteristics of patients (n=110,051)

	ICH (n=22,073, 20.1%)	IS (n=87,978, 79.9%)	P
Age, mean (SD)	67.9 (14.0)	72.6 (12.2)	<0.001
NIHSS on admission, median (IQR)	11 (4–23)	4 (2–9)	<0.001
Days of hospitalization, median (IQR)	24 (12–43)	17 (11–31)	<0.001
mRS at discharge, median (IQR)	4 (2–5)	2 (1–4)	<0.001
Death or disability (mRS 3–6), n (%)	14,832 (67.2)	37,814 (43.0)	<0.001
In-hospital death (mRS 6), n (%)	3,192 (14.4)	4,180 (4.8)	<0.001

Results

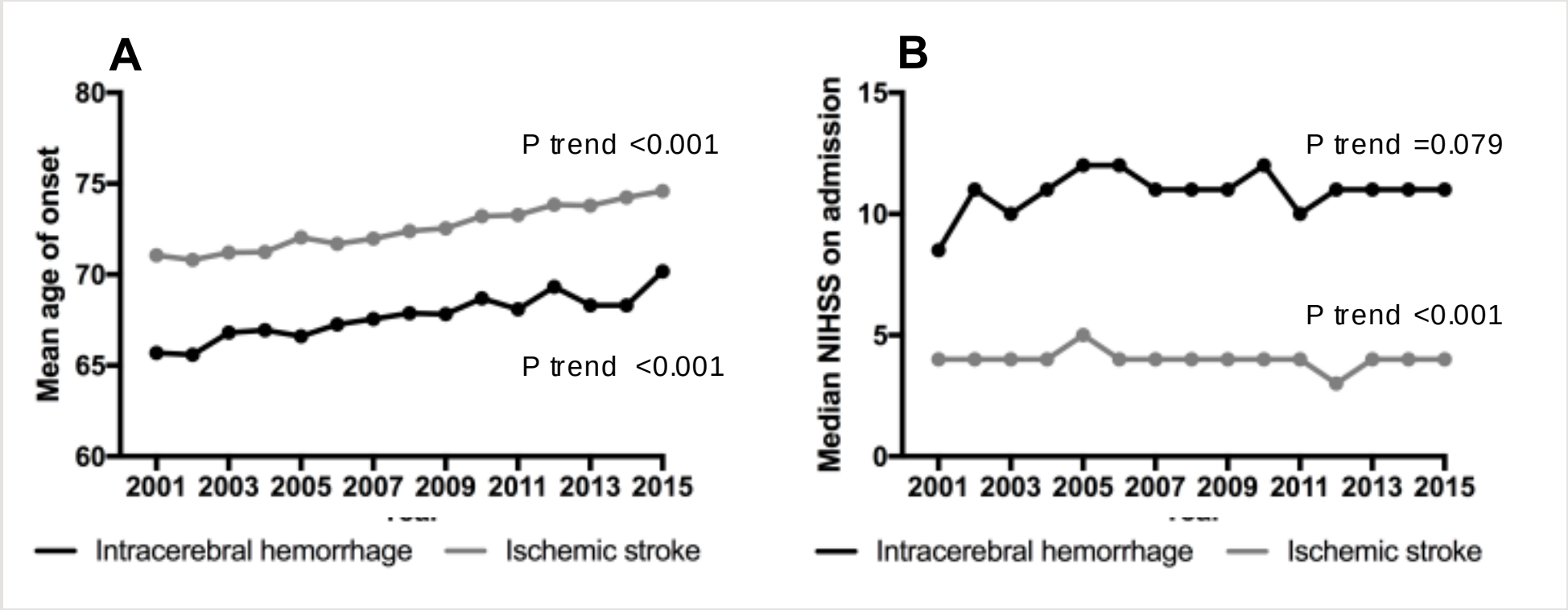

Figure. Yearly trends of age of onset (**A**), National Institutes of Health Stroke Scale (NIHSS) on admission (**B**)

Results

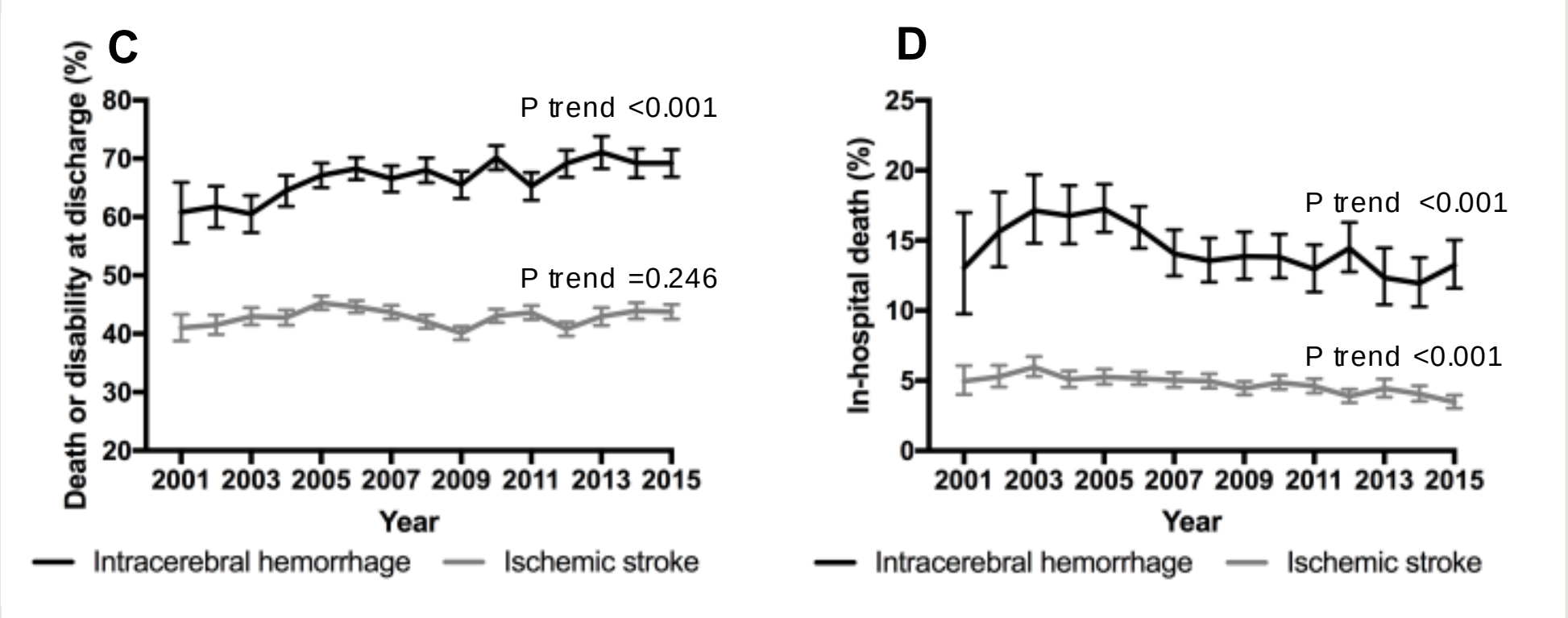

Figure. Yearly trends of age of death or disability at discharge (**C**), and in-hospital death (**D**). Models were adjusted for age, NIHSS, days of hospitalization, and stroke subtype (ICH versus IS). P for interaction (year*stroke subtype) are <0.001 and 0.466 for **C** and **D**, respectively.

Conclusions

- In the past 15 years, in-hospital mortality in patients with ICH or IS admitted to Japanese stroke centers has declined, but the rate of death or disability at discharge in those with ICH has increased.
- Our findings underscore the need of treatment improving ICH outcome.