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rt-PA

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Advances in mechanism of intracranial hemorrhage and transformation after intravenous thrombolysis treatment with rt-PA

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Key words Ischemic stroke rt-PA Intravenous thrombolysis Intracranial hemorrhage transformation Reviews

(Recombinant Tissue Plasminogen Activator rt-PA)

(NINDS) (ECASS) 2014

rt-PA

rt-PA

rt-PA

1

22 h~7 d [1]

rt-PA

5 min NINDS rt-PA

24 h 80%

12 h

24 h

[2]

NINDS ECASS

ECASS

(Hemorrhagic Infarcts HI) (Parenchymal Hematomas PH)

HI PH

HI PH [3-4]

(Symptomatic Intracerebral Hemorrhage sICH) (Non-symptomatic Hemorrhage ICH) sICH

NINDS ECASS (SITS-MOST) [3-6]

ECASS

(7 d)

[1 7]

( )

27.5% [7]

572031

— (Blood-brain Barrier

BBB) rt-PA - α
rt-PA

[14-15]

BBB
HI

PH

[4]

( )

PH CT

[8-9]

sICH

(Cerebral Amyloid Angiopathy CAA)
CAA rt-PA
70%
22% [10-11] CAA

(Cerebral Microbleeds CMB)
CAA
rt-PA

[16-17]

Meta CMB
sICH (RR) 1.90(95% CI=0.92~3.93
P=0.08) [4] Kimura [12] CMB
CMB 24 h
CMB sICH

Mehta [13]

rt-PA

2

BBB
BBB

BBB

[18-20]

3 rt-PA

HI PH
ECASS-I
rt-PA 36 h 30%

SITS GRAPSPS SEDAN HAT
7 HINSS

C (C-statistic)
C 0.62~0.70

13%

rt-PA rt-PA

rt-PA

[21] rt-PA

(1)rt-PA

rt-PA

rt-PA

rt-PA

PH [2]

(2)rt-PA rt-PA

rt-PA PH

rt-PA rt-PA

[22] rt-PA

BBB

rt-PA

(LDL

Receptor-related Protein LRP)

C(Derived Growth Factor C) N- -d-

(N-methyl-d-aspartate NMDA)NR1

rt-PA

[23-27] rt-PA

BBB

BBB

[28] rt-PA

(Matrix Metalloproteinase MMP) MMP-3

MMP-9 MMP

BBB [14 26 28]

BBB

rt-PA

rt-PA

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Key words Stroke Dementia Vascular cognitive impairment Reviews

(Vascular Cognitive Impairment VCI VCI) Hachinski Bowler [1] 1993 ( )

VCI VCI

VCI

VCI

VCI

VCI VCI

(Vascular Mild Cognitive Impairment VaMCI) (Vascular Dementia VaD) [2]

1 VCI

VCI

( )

150000

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1.1 Hachinski Bowler [1] VCI 3

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