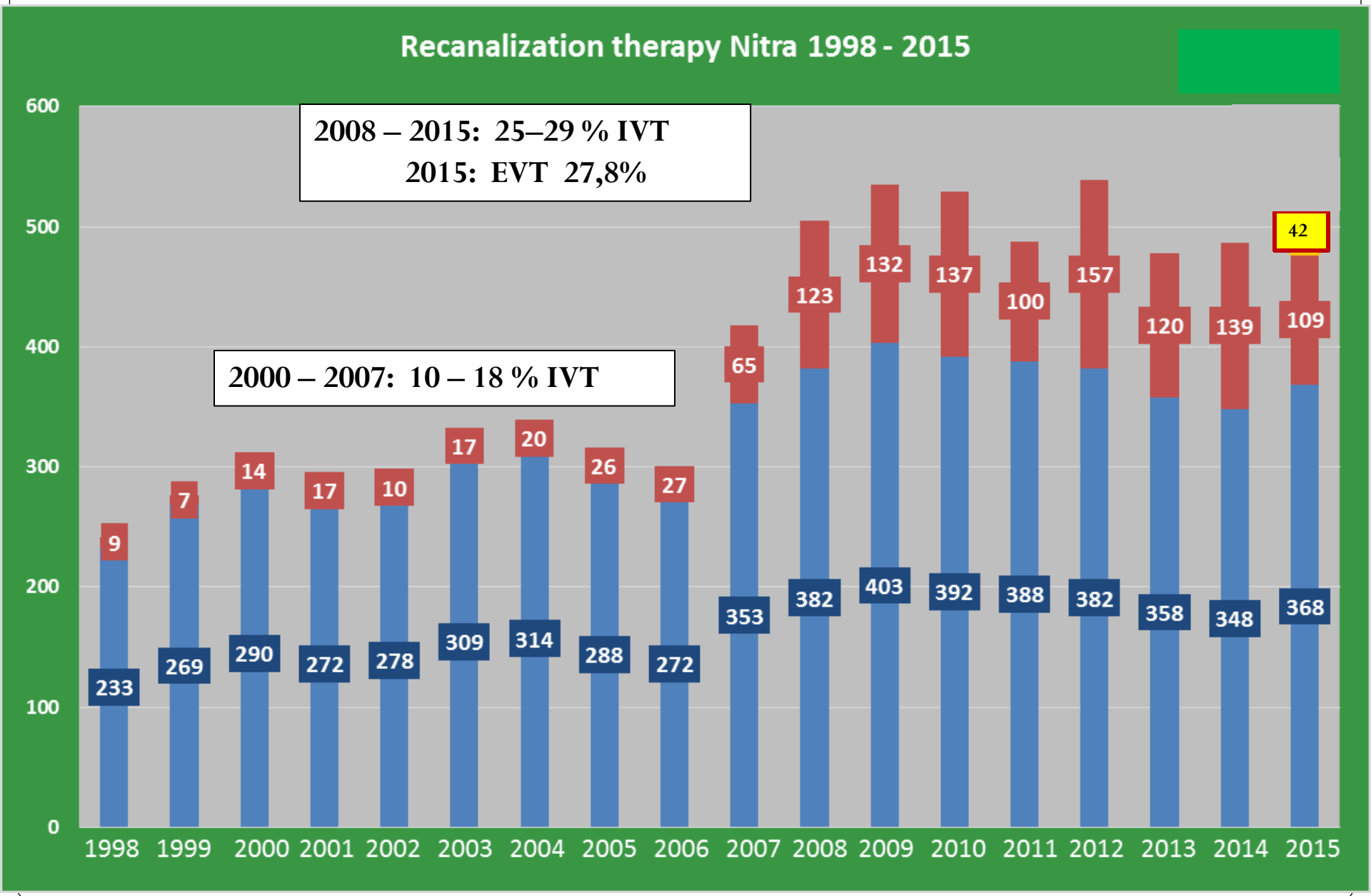
ENDOVASKULÁRNA LIEČBA AKÚTNYCH MOZGOVÝCH INFARKTOV V KARDIOCENTRE NITRA - ANALÝZA VÝSLEDKOV MECHANICKÝCH TROMBEKTÓMIÍ POČAS ROKOV 2014-2015

Kurray P., Blaško P, Vytiska M., Hranai M. Viszlayová D., Brozman M. a kol.

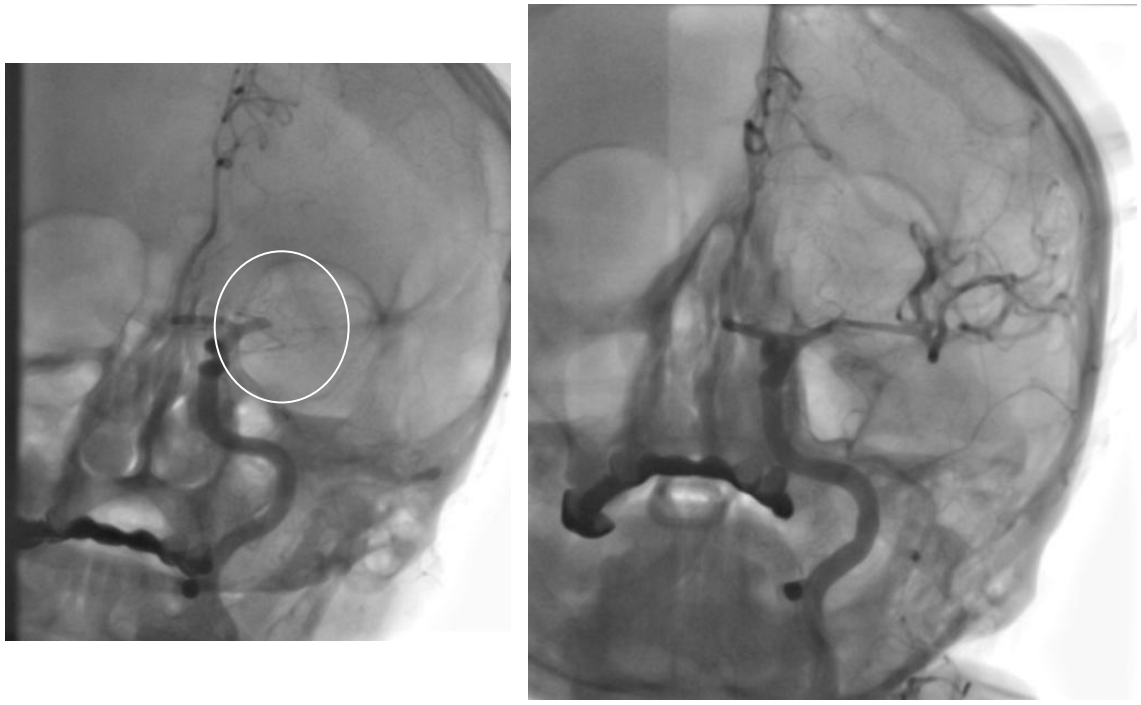
KARDIOCENTRUM Nitra

Neurologická klinika FN Nitra


Recanalization therapy Nitra 1998 - 2015
2008 – 2015: 25–29 % IVT
2015: EVT 27,8%
2000 – 2007: 10 – 18 % IVT
600
500
400
300
200
100
0
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015
9 7 14 17 10 17 20 26 27 65 123 132 137 100 157 120 139 42
233 269 290 272 278 309 314 288 272 353 382 403 392 388 382 358 348 368
109

História EVT vo FN Nitra

- 2009 – 3 pac
- 2010 – 2
- 2011 – 4
- **2012 – 2**
- **2013 – 10**
- **2014 – 17**
- **2015 – 41**
- **2016/4 - 36**



IA rtPA/plazmín

Mechanická trombektómia, trombaspirácia

PTA

Medicínska a mediálna revolúcia, 2014 - 2015

- *'Now even endovascular skeptics will be convinced,,*
- *Positive Endovascular Trials Herald 'A New Day in Stroke'*
- *Endovascular Treatment of Acute Ischemic Stroke: Honolulu Shock and Thereafter*
- ***A rewriting of clinical care guidelines for stroke care***
- ***Research breakthrough to revolutionize stroke treatment***


ZE STOCKHOLMU TELEFONUJE ZVLAŠTNÍ ZPRAVODAJ MLADÉ FRONTY V PACINA

Pro svět senzace, pro soupeře pohroma, pro nás všechno

Ano, je to pravda!

slova nepodrážejí

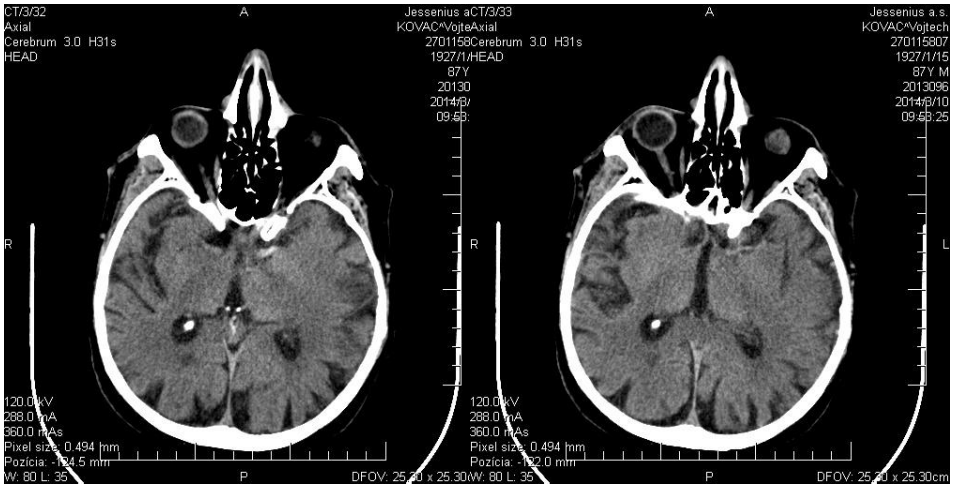
4:3

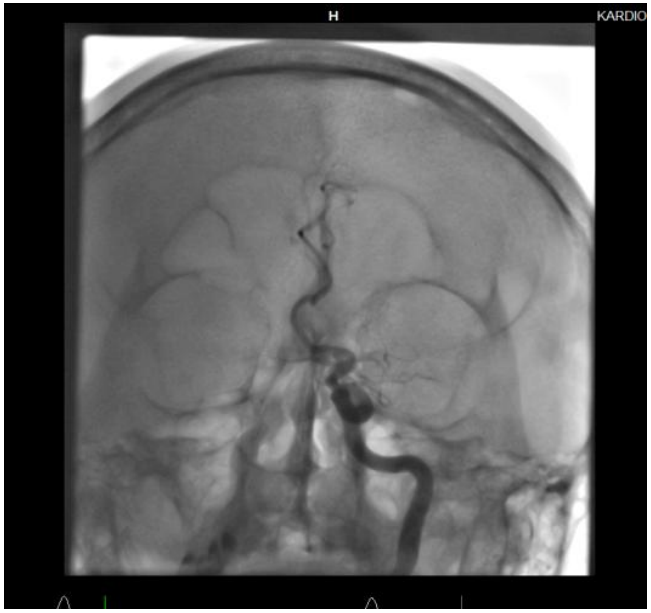
MLUVA TABULEK

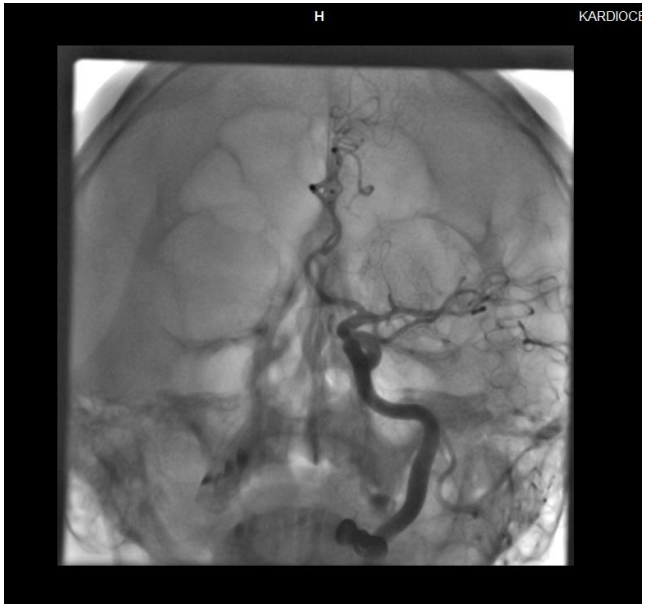
NEJLEPŠÍ STŘELCI

Polyfonie štěstí

2013, 2014


CT/3/32
Axial
Cerebrum 3.0 H31s
HEAD
A
R
P
120.0 kV
288.0 mA
360.0 mAs
Pixel size: 0.494 mm
Pozícia: -124.5 mm
W: 80 L: 35
DFOV: 25.30 x 25.30cm
Jessenius aCT/3/33
KOVAC^VojteAxial
2701158Cerebrum 3.0 H31s
1927/1/HEAD
87Y
20130
2014/3/
09:53:
A
R
P
120.0 kV
288.0 mA
360.0 mAs
Pixel size: 0.494 mm
Pozícia: -122.0 mm
W: 80 L: 35
DFOV: 25.30 x 25.30cm
Jessenius a.s.
KOVAC^Vojtech
270115807
1927/1/15
87Y M
2013096
2014/3/10
09:53:25
L


H
KARDIO

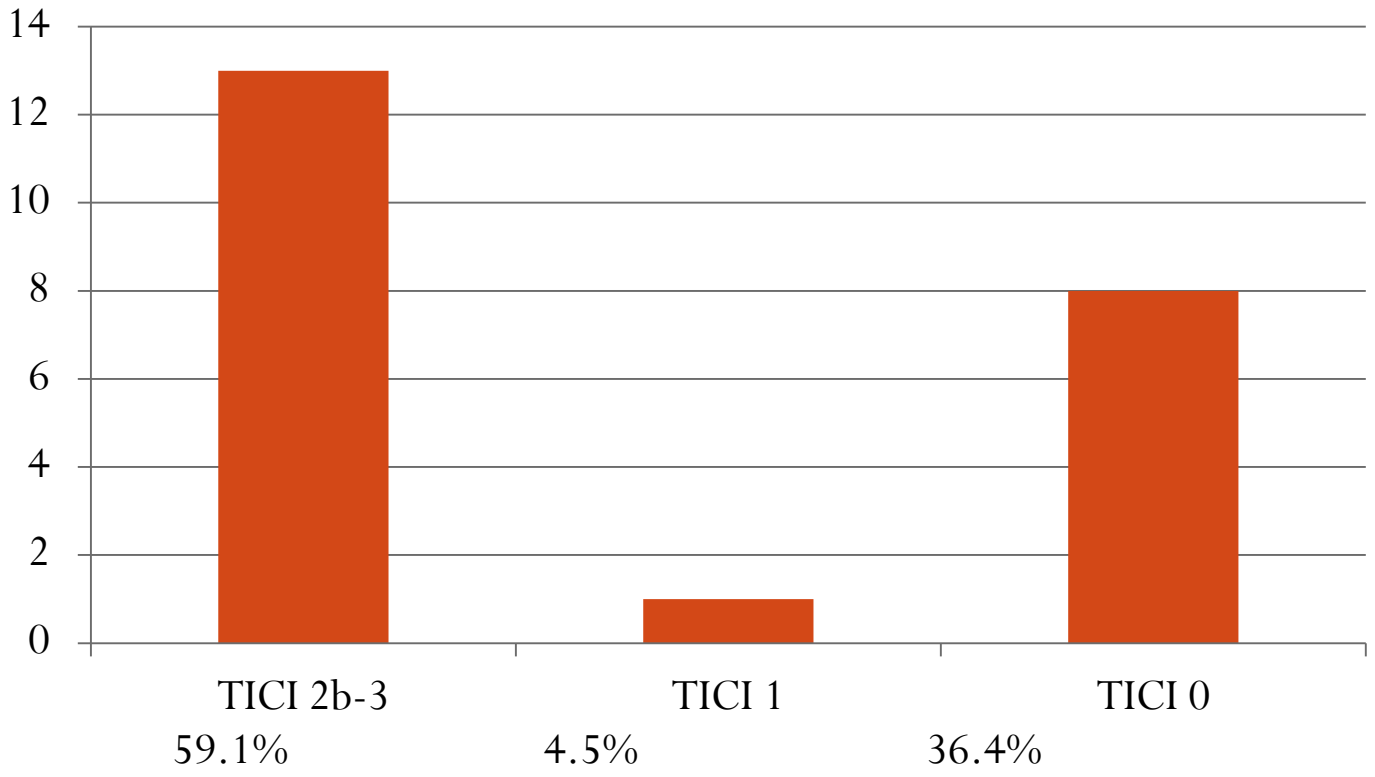

H
KARDIOC

Typ výkonu

- 2013 - plazmín (3x), stent
  - 2x extrakcia (Merci)
  - 4x Trevo
  - 1x IAT + balónová dilatácia
  - IAT 5x

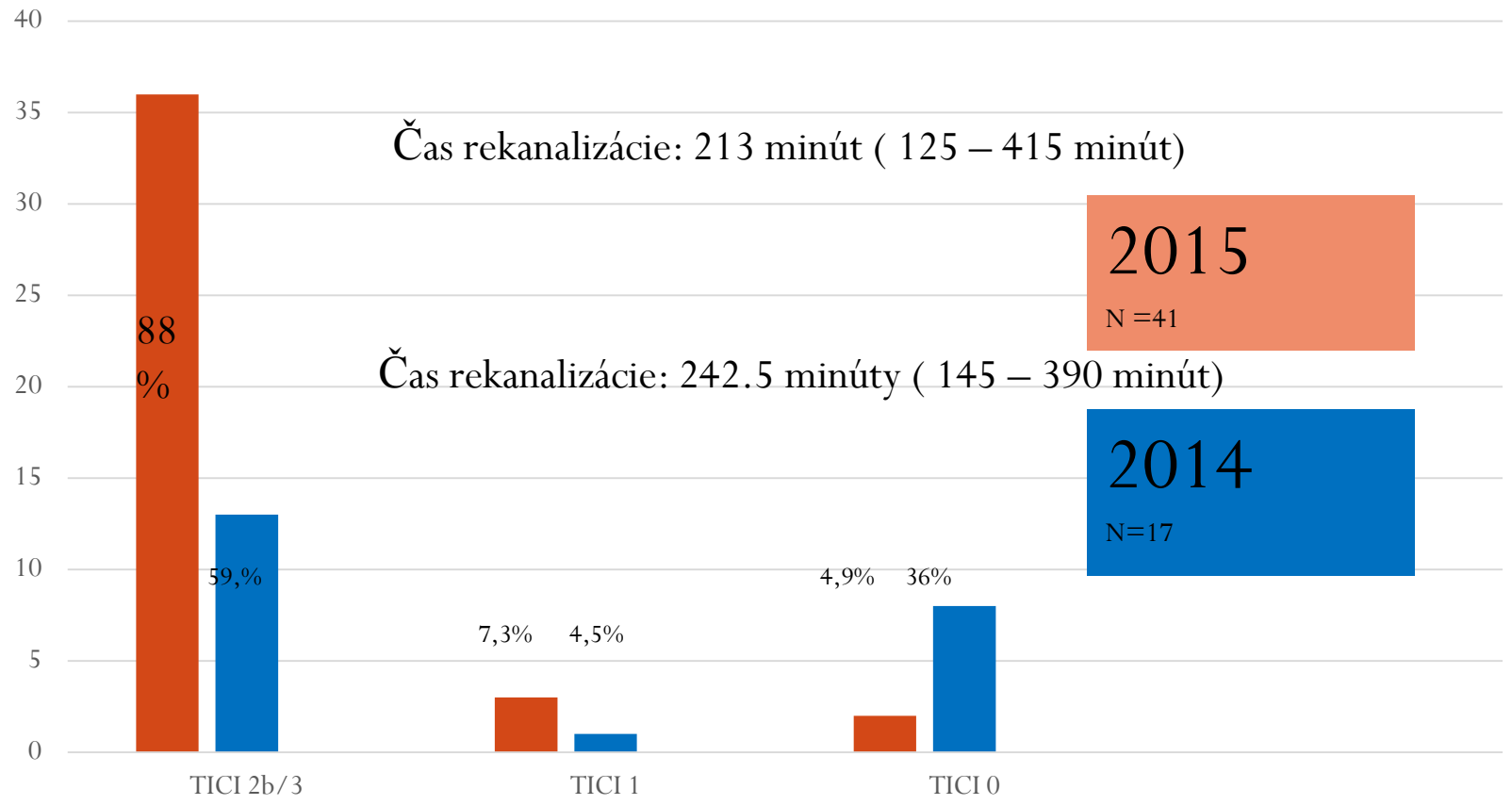
- 2014 - 12 x extrakcia (Trevo), stent, IAT
- 2015 – 41 x extrakcia / Penumbra, Trevo, Retriever/ . IAT

Výsledky 2014 – 17 pacientov



Čas rekanalizácie: 242.5 minúty (145 – 390 minút)

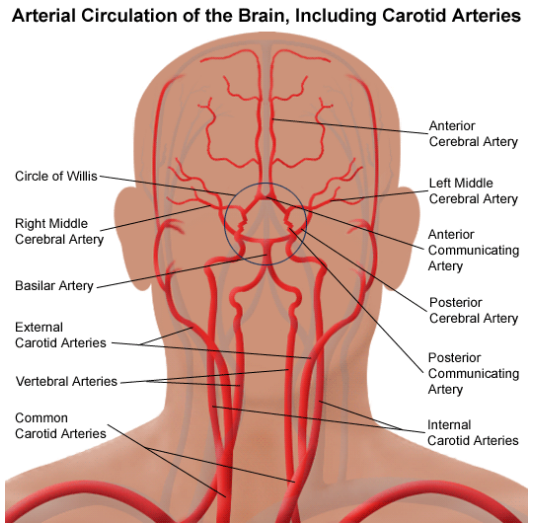
Výsledky 2014- 2015



2015 – 41 pacientov

- MCA M1/M2 – 17 pacientov 41,6%
- ICA + MCA – 11 pacientov 26,8%
- A. basilaris + a. vertebralis – 5 pacientov 13,5%
- T oklúzia – 4 pacienti 9,75%
- A. vertebralis – 4 pacienti 9,1%

- Vstupné NIHSS – 18 (12-25)
- IVT – 81,8%
- CtAg: 45,5% DSA: 54,5%

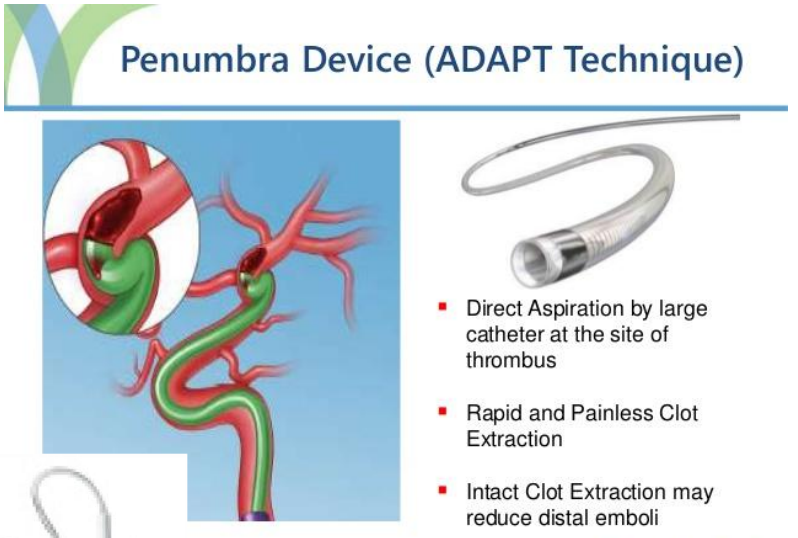


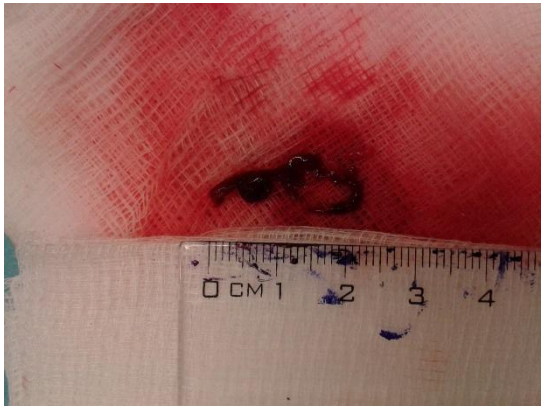
Časové intervaly

- Onset to puncture, predná cirkul.: 150 min (60-350)
- Onset to puncture, zadná cirkul.: 21,5 hod (200min-48h)
- Onset to recanalisation, predná: 213 min (125-415)
- Onset to recanalisation, zadná: 22 hod (230min-49h)

Tepenný prístup 2015

- 1x ulnárny
- 2x radiálny
- 38x femorálny





Časové intervaly: štúdie 2015

150

213

Table. Summary of Data From the 5 Trials

Trial N IAT+/CTL	NIHSS Range		r-tPA	TICI 2B/3	LSN to Groin Mdn	mRS 0–2 at 90 d		sICH		Device Complications	Mortality		
	CTL	IAT+				CTL	IAT+	CTL	IAT+		CTL	IAT+	
MR CLEAN[12] 500 233/267	18 (14–21)	17 (14–22)	90%	59%	260	19%	33%	6.4%	7.7%	Embol. 13	22%	21%	332
ESCAPE[13] 315 165/150	17 (12–20)	16 (13–20)	76%	72%	200	29%	53%	2.7%	3.6%	Perfor.1	19%	10%	241
EXTEND IA[14] 70 35/35	13 (9–19)	17 (13–20)	100%	86%	210	40%	71%	6%	0%	Perfor.1 Embol.2	20%	9%	248
SWIFT PRIME[15] 196 98/98	17 (13–19)	17 (13–20)	98%	88%	224	36%	60%	3%	0%	SAH 4	12%	9%	252
REVASCAT[16] 206 103/103	17 (12–19)	17 (14–20)	73%	66%	269	28%	44%	1.9%	1.9%	Perfor. 5 Embol. 5	16%	18%	355

CTL indicates control group; Embol, distal embolization; IAT+, intra-arterial thrombectomy on top of standard treatment including r-tPA; LSN, time (minutes) from last seen normal to groin puncture in IAT+ group; Mdn, median; mRS 0–2 at 90 d, modified Rankin Scale of 0–2 at 90 days after randomization; NIHSS, baseline National Institutes of Health Stroke Scale; Perfor, vessel perforation; r-tPA, patients in trial treated with recombinant tissue-type plasminogen activator; REVASCAT, Randomized Trial of Revascularization With the Solitaire FR Device Versus Best Medical Therapy in the Treatment of Acute Stroke Due to Anterior Circulation Large Vessel Occlusion Presenting Within Eight Hours of Symptom Onset; SAH, subarachnoid hemorrhage; sICH (SITS), symptomatic intracerebral hemorrhage based on safe implementation of treatments in stroke criteria; and TICI 2b/3, patients in IAT+ group achieving thrombolysis in cerebral infarction grade 2b or 3 reperfusion.

Výsledky

- Počet rekanalizácii, predná cirkulácia:
  - TICI 2b/3: 50%
  - TICI 2a: 25%

- Počet rekanalizácií, zadná cirkulácia:
  - TICI 2b/3: 100%

- Vstupné NIHSS – 18 (12-25)
- NIHSS 7.deň – 9,7 (1-22)
  - 1 pacient exitoval na 5.deň

TICI 2b-3

Zadná cirkul.:
TICI 2b/3: 100% (9/9)

Table. Summary of Data From the 5 Trials 88%(29/33)

Trial N IAT+/CTL	NIHSS Range CTL	NIHSS Range IAT+	r-tPA	TICI 2B/3	LSN to Groin Mdn	mRS 0–2 at 90 d CTL	mRS 0–2 at 90 d IAT+	sICH CTL	sICH IAT+	Device Complications	Mortality CTL	Mortality IAT+
MR CLEAN[12] 500 233/267	18 (14–21)	17 (14–22)	90%	59%	260	19%	33%	6.4%	7.7%	Embol. 13	22%	21%
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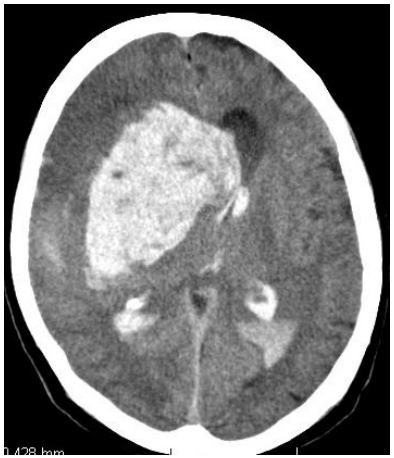
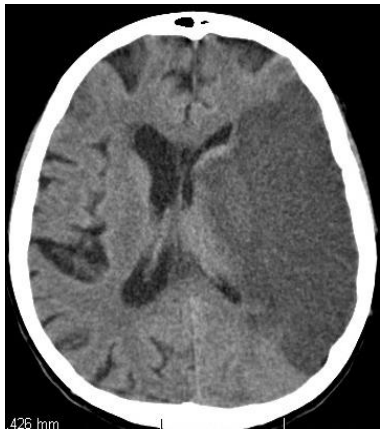
Komplikácie, Nitra 2015

- 2 hemorag. transformácie: HT2, PH2
- 1 disekcia
- 1 femorálna pseudoaneuryzma
- 2 reoklúzie, 2 včasné recidívy iCMP



- 6 úmrtí
  - 2 hemoragicko-ischem.poškodenie mozgu
  - 2 expanzívna malácia
  - 1 náhla smrť
  - 1 disekcia



Mortalita

14,6%

Table. Summary of Data From the 5 Trials

Trial N IAT+/CTL	NIHSS Range CTL	NIHSS Range IAT+	r-tPA	TICI 2B/3	LSN to Groin Mdn	mRS 0–2 at 90 d CTL	mRS 0–2 at 90 d IAT+	sICH CTL	sICH IAT+	Device Complications	Mortality CTL	Mortality IAT+
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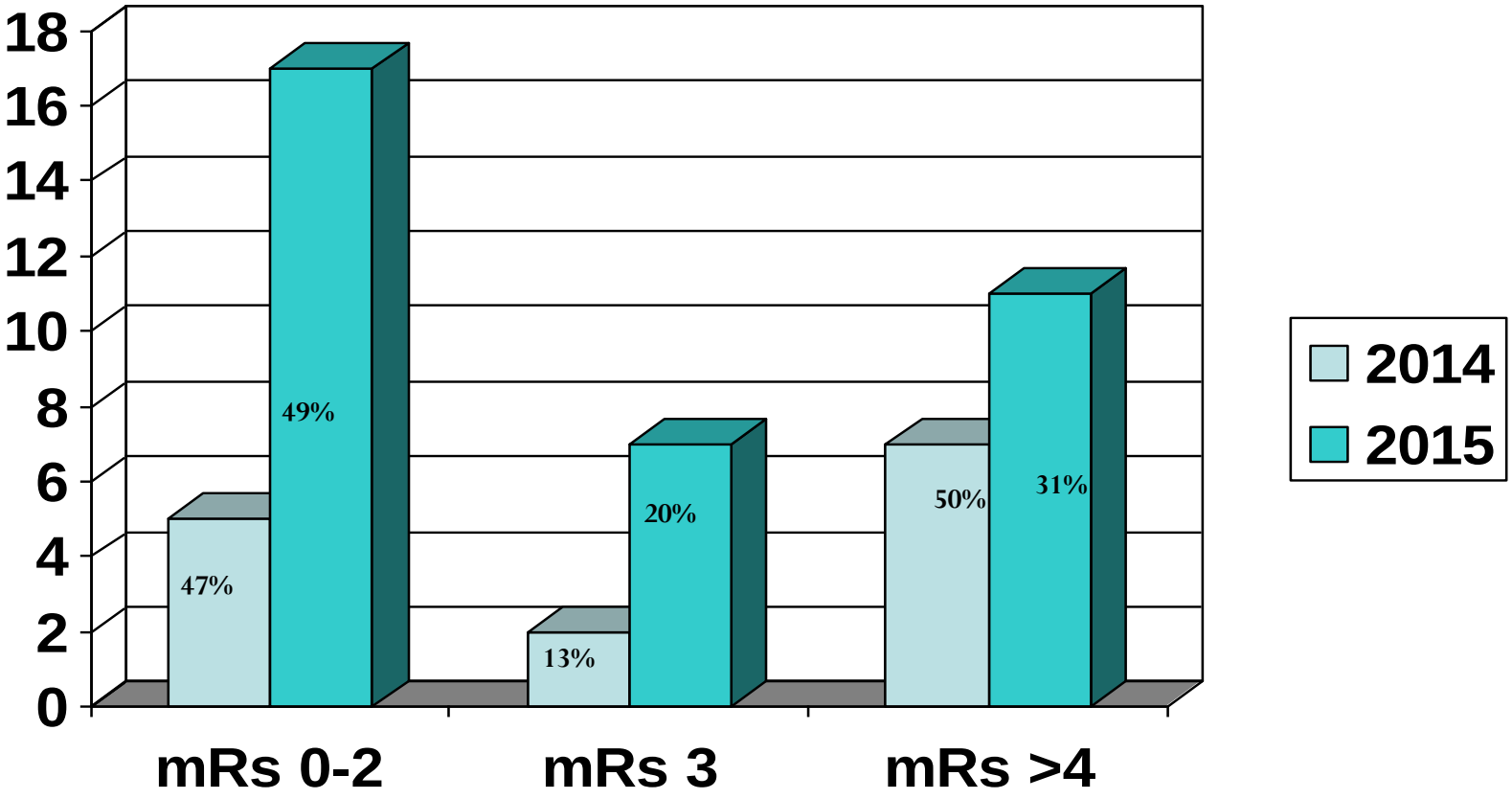
mRs 3 mesiace 2014-2015



Zhodnotenie

- Dramaticky pozitívne výsledky
- Vyšší počet rekanalizácií
- Viac funkčne nezávislých pacientov
- Bezpečnosť
- Nová generácia inštrumentária (Penumbra)

KOS mobil: 07/2012 – 2016

- **STOP:** OUM, JIS NK
- **KOS – CT – IVT – KC Nitra**

Závery

- IAT liečba iCMP preukázala v klin. štúdiách svoj efekt a bezpečnosť
- FN + Jessenius s.r.o. + Kardiocentrum Nitra:
  - 24/7 nepretržitá dostupnosť
  - 24/7 CT + CTAg
  - Alternatívne perfúzne CT, MRI
  - 3 intervenční kardiológovia
  - Prepracovaná a overená logistika: KOS mobil
  - Veľmi dobré časové intervaly
  - Zvyšujúci sa počet výkonov EVT
  - Zvyšujúci sa počet rekanalizácií

Endovaskulárna liečba iCMP
FN / Dg centrum Jesenius/ KC Nitra

KARDIOCENTRUM NITRA

Ďakujem za pozornosť.