ESC Heart & Brain Workshop

Stroke treatment using AMI network in Moscow

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Moscow

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I HAVE NO CONFLICT OF INTEREST TO DECLARE
MOSCOW
PCI-CAPABLE Hospitals

[Map showing various locations in Moscow marked with red pins, labeled with hospital numbers.]
Moscow MI Network

- **PATIENT**
- **AMBULANCE**
- **HOSPITALIZATION**

**HEART ATTACK** → **911 (03) center** → **AMBULANCE**
- ECG
- Hospitalization to PCI capable hospital

**CATH LAB**

“OS STACIONAR” COMPUTER network

24 CENTERS
MOSCOW

PCI Mortality
MOSCOW

PCI

Mortality
MI NETWORK FOR STROKE TREATMENT

STROKE Team

CT/MRI 24/7
CT/MRI radiologist

STROKE UNIT 24/7
Neurologist

CATH LAB 24/7
Interventional cardiologist

Map of locations
MOSCOW
POPULATION 12 MILLION

INTERVENTION STROKE CENTER

24/7
EDUCATION PROGRAMM

1. SIMULATORS AND FLOW MODELS

2. ANIMAL LABS (RIGA, ROTHERDAM, AAHEN ...)

3. WORKSHOPS (Speakers from high experienced European hospitals)
MOSCOW STROKE NETWORK

112 (103) center

“OS Statsionar” Computer network

AMBULANCE
• PREHOSPITAL ELVO SELECTION

PRENOTIFICATION

INTERVENTION STROKE HOSPITAL

HOSPITALIZATION (52 MIN)
PRE-HOSPITAL PATIENT SELECTION FOR INTERVENTIONAL STROKE TREATMENT

TIME FROM STROKE ONSET

< 4 HOURS

*Stroke severity evaluation (ELVO selection):*
- Prehospital Stroke scale LAMS $\geq 4$
- Patient is conscious (no sopor or coma)

**YES**

Hospitalization to the selected interventional hospital

**NO**

> 4 HOURS

Hospitalization to the nearest stroke unit
IN-HOSPITAL PATIENT SELECTION FOR INTERVENTIONAL STROKE TREATMENT

1. NEUROIMAGING (ISCHEMIC STROKE CONFIRMATION)
2. NONINVASIVE ANGIOGRAPHY (ELVO CONFIRMATION)
3. ASPECTS ≥ 6
4. TIME FROM STROKE ONSET TO ARTERIAL PUNCTURE ≤ 6 HOURS
IN-HOSPITAL MEETING POINT

NEUROLOGIST

RADIOLOGIST

IV rTPA?
INTERVENTION?

ANESTHESIOLOGIST

INTERVENTIONAL
RADIOLOGIST
COMBINED STENTRIEVER + ASPIRATION

ASPIRATION CATHETER

GUIDING CATHETER

STENTRIEVER

THROMBUS

ASPIRATION CATHETER
DISTAL INJECTION

STENTRIEVER

PROXIMAL INJECTION
## Baseline Characteristics

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<thead>
<tr>
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<th>Value</th>
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<tr>
<td>N = 248 Patients</td>
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<tr>
<td>Mean NIHSS (admit)</td>
<td>16,4 +/- 5,6</td>
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<tr>
<td>Male</td>
<td>48,6%</td>
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<tr>
<td>Mean age</td>
<td>66,2 +/- 13,3 Y (26-98 Y)</td>
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## Time

- Symptom Onset – Call: 47,8 Min
- Mean 103 Call – Hospital: 52 Min
- Puncture – Recanalisation: 68,1 Min

## Clinical Outcome

- mRS 0-2: 32% (at discharge)
- Symptomatic ICH: 7,5%
STROKE INFORMATION PROGRAMM
An up-to-date “infarction network” has been built in Moscow, allowing to increase the number of PPCI and to decrease mortality in ACS patients.

This infarction network laid the foundation for the stroke network focused on the treatment of patients with acute ischemic stroke.
THANK YOU FOR YOUR ATTENTION!