THE CASE FOR URGENT CAROTID DUPLEX SCANNING BEFORE STARTING THROMBOLYTIC THERAPY FOR ACUTE STROKE: HOW CAN IT HELP TO DETERMINE OPTIMAL THERAPY

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AHA/ASA Guideline
Guidelines for the Early Management of Patients With Acute Ischemic Stroke: Executive Summary
A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association

No need to detect the cause of the stroke before starting treatment

Why this man/woman has a stroke?

AHA/ASA Guideline
2015 American Heart Association/American Stroke Association Focused Update of the 2013 Guidelines for the Early Management of Patients With Acute Ischemic Stroke Regarding Endovascular Treatment

No hint to the necessity of performing urgent carotid imaging
TIME IS BRAIN BUT...

What has caused this stroke?
"more haste, less speed"

THROMBOLYSIS IN CAROTID-RELATED STROKE PATIENTS

71-year-old man
Right hemispheric stroke
Submitted to i.v. rtPa administration

The following day...
2 new acute ischemic lesions

THROMBOLYSIS IN CAROTID-RELATED STROKE PATIENTS

Duplex ultrasound
Ulcerated and disrupted right carotid plaque

67-year-old man
Left hemispheric stroke
Submitted to i.v. rtPa administration
THROMBOLYSIS IN CAROTID-RELATED STROKE PATIENTS

Left carotid artery

Right carotid artery

DISCUSSION I
CAROTID PLAQUES ARE "LIVING ENTITIES" whose fibrous cap disruption can lead to debris embolization

DISCUSSION II
SYSTEMIC THROMBOLYSIS administration can have a detrimental effect in rare cases of carotid plaque ulceration

Diagnosis of carotid plaque hemorrhage and disruption as CAUSING neurological symptoms can be beneficial in planning the best multidisciplinary strategy in stroke patients

DISCUSSION III
PROMPT DIAGNOSIS of the stroke etiology/cause might be the turning point of tailored treatment

There is emerging evidence that advanced imaging can help to tailor the best treatment strategy in different stroke patients

DISCUSSION IV
RESPONSE TO TREATMENT is influenced by:
- Brain ischemia localization
- Brain ischemia volume
- Ischemic penumbra volume
- Collaterals
CONCLUSIONS
Carotid disease should be taken into account when evaluating stroke treatment strategy

SUCCESS
Stroke treatment is more and more a multidisciplinary work

Thanks for your attention

VEITH SYMPOSIUM
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