Aortic dissection masquerading as a “code stroke” a prospective case series

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Stroke?

Aortic
dissection?

BACKGROUND

- ◆ Aortic dissection: rare, high morbidity and mortality
- ◆ Incidence in general population: ± 3 per 100 000 person-years
- ◆ Up to 40% of patients present with neurological symptoms

Aim: incidence of aortic dissection in acute stroke population

METHOD

- ◆ Prospective single-center registry
- ◆ Consecutive patients who presented to emergency department in 2017 with neurological deficits suggestive of an acute stroke (“code stroke”)
- ◆ CT-angiography of aortic arch, cervical and intracranial arteries

RESULTS

Figure. Incidence

Table. Clinical manifestations, radiological findings and outcomes

Patient	Sex	Age (years)	Pain location	Neurological symptoms	Aortic dissection (Stanford classification)	Location of ischemia	Reperfusion therapy	Aortic surgery	Outcome (mRS)
1	♂	67	Head	Dysarthria, hemiparalysis, hemihypesthesia, gaze deviation	Type A, continuing proximally into R common carotid artery, extra and intracranial internal carotid artery	R hemisphere	IVT (discontinued after diagnosis of dissection)	Yes	0
2	♂	73	Chest, back	Paraparesis, paraparesthesia	Type A, continuing proximally into origin of L subcl. artery; distally into celiac trunk, sup.mes. artery and ext. iliac arteries	Spinal cord	No	Yes	1
3	♀	73	Chest	Paraparalysis, para-anesthesia	Type A, continuing proximally into R brachioceph. trunk, common carotid arteries, L subcl. artery; distally into R. common iliac artery	Spinal cord	No	Yes	4
4	♂	54	Chest	Decreased consciousness, pathological stretching of limbs, gaze deviation	Type A, continuing proximally into common carotid arteries, R vertebral artery; distally into celiac trunk, sup. mes. artery, ext. iliac arteries	R and L hemisphere	No	No	6

Figure.
CTA patient 4

CONCLUSION

- ◆ ± 1 in 200 “code stroke” patients has an acute aortic dissection
- ◆ Imaging of entire aortic arch in “code stroke” patients is crucial to prevent missing this diagnosis