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概念

Transient ischemic attack, TIA
局灶性脑缺血导致突发短暂的可逆性神经功能障碍

突发一过性缺血
局部脑灌注减少

➤

相应供血区域
脑功能障碍

➤

导致一过性
神经功能缺损症状

TIA早诊早治的原因:

- 20% 的TIA病例在数小时至数天中进展为脑梗死
- 80% 的TIA后导致的缺血性卒中是可以被有效预防的

Hankey GJ, et al. Lancet 1999.
Rothwell PM, et al. Neurology 2005.

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Cerebral Vascular Disease

病例及思考

- A 50-year-old man presented to the emergency department with an episode of left hemiplegia that lasted 5 minutes
- He smoked cigarettes but otherwise had no significant past medical history
- His physical examination of nervous system was normal, with blood pressure of 125/75 mm Hg and an ABCD² score of 2

What characteristics of this patient?

What investigations should he take?

What was the diagnosis?

What about the probability of ischemic events?

What was the proper management?

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What characteristics of this patient?

急性起病
短暂发作 (5分钟)
中枢神经系统感染功能缺损症状
有脑血管病危险因素

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Cerebral Vascular Disease

KEY POINT – 详细的病史采集

- 急性起病**
 - 急性卒中样起病
 - 快速达到疾病高峰程度
- 符合脑血流分布区的神经系统功能缺损**
 - 需要详细询问局灶性的症状体征，斟酌非局灶性症状
 - **典型局灶性症状**：如偏侧肢体的功能障碍（偏身无力、偏身感觉减退，等）
 - **非局灶性症状**：全身乏力，头重脚轻的头昏，晕厥、黑朦，膀胱直肠症状等
- 其他特点**
 - 起病时患者正在做什么？
 - 症状是否曾出现过？出现过几次？频率如何？

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Cerebral Vascular Disease

BACK TO THE CASE

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辅助检查

神经及心脏循环系统的检查都尽可能全面地完成，已确定病因。

心脏检查



血液检查



颅脑影像

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辅助检查 - 心脏检查

- Blood pressure, pulse rate, and oxygen saturation should be obtained
- An ECG should be performed to evaluate for atrial fibrillation
- Many patients will also require an echocardiogram and some form of extended cardiac monitoring if no definitive cause is found for the TIA

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辅助检查 - 血液检查

- **血细胞分析:** Complete blood count to measure total hemoglobin and screen for anemia or erythrocytosis as a cause of TIA. Platelet count is relevant as thrombocytosis is a potential cause of TIA
- **凝血及纤溶系统:** disorders of coagulation can present as a TIA. A thrombophilia screen, is also advised
- **血糖:** as hypoglycemia and hyperglycemia are important potential mimics of a TIA. Hypoglycemia, in particular, needs to be recognized and treated quickly

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辅助检查 - 颅脑影像

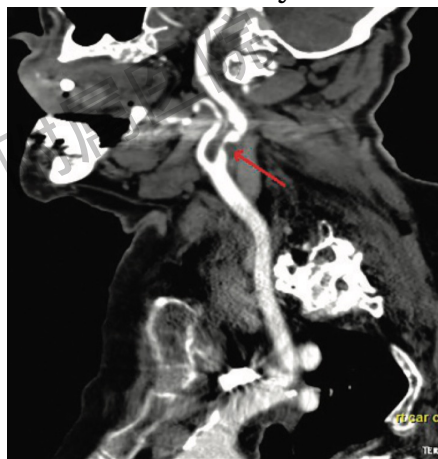
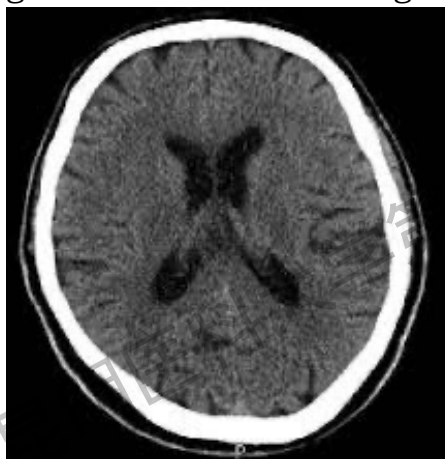
- 颅脑影像是TIA最重要的检查
- 首先进行: 头颅CT平扫
 - 排外脑梗死或其他类型的脑血管病、肿瘤等
- 其他影像检查: 头颅MRI, MRA, CTA

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BACK TO THE CASE

- Head CT was normal, but CT angiography showed a high-grade stenosis of the right internal carotid artery.



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DIAGNOSIS

- 1 急性起病短暂发作(< 24 hrs)
- 2 表现为中枢神经系统的功能缺损，符合血流分布
- 3 颅脑影像未见与本次发生相关的病灶
- 4 具有脑卒中危险因素

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复发或进展的病情判断

- 利用临床特征的符合评分进行复发或进展的风险性判断

ABCD2 Score And Prognosis After TIA	Score	Factor Assessed at Time of TIA
	1	Age \geq 60 years
	1	Blood pressure \geq 140/90 mm Hg on first evaluation
	2	Clinical symptoms of focal weakness with the spell (or)
	1	Speech impairment without weakness
	2	Duration \geq 60 minutes (or)
	1	10 to 59 minutes
	1	Diabetes

ABCD2 Score And Risk of Stroke	ABCD2 Score	2-Day Risk of Stroke (%)
	0 to 1	0
	2 to 3	1.3
	4 to 5	4.1
	6 to 7	8.1

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复发或进展的病情判断

Clinical and Imaging Features That Increase the Risk of a Recurrent Stroke or Symptom Progression After Transient Ischemic Attack or Minor Stroke

Feature	High Risk	Low Risk
	←	→
Timing	Hours ago	Weeks ago
Age (years)	>60	<45
Blood pressure at presentation (mm Hg)	>140/90	<140/90
Diabetes mellitus	Yes	No
Symptoms	Speech, weakness	Dizziness, numbness
Duration (minutes)	>60	<10
Frequency of events	One or few	Many
Degree of clinical improvement	Vanishing severe deficit	Improving mild deficit
Intracranial stenosis	Severe	None
Extracranial stenosis	Present	Absent
Intracranial occlusion	Present	Absent
Diffusion-weighted imaging lesion	Multiple greater than single	None
Transcranial Doppler emboli detection (microembolic signals/hour)	>50	None

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Cerebral Vascular Disease

治疗

- 积极的治疗是尽可能避免TIA复发或进展的方法
- 早期启动正确的防治措施将减少80%的TIA进展为脑梗死

抗血小板聚集药物	血栓形成	他汀稳定斑块治疗	治疗高血压糖尿病	生活方式干预	病因治疗
抗凝药物	栓子				

Lavalle' e PC, et al. Lancet Neurol 2007.

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- A 50-year-old man presented to the emergency department with an episode of left hemiplegia that lasted 5 minutes.
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- Head CT was normal, but CT angiography showed a high-grade stenosis of the right internal carotid artery.
- He was started on 81 mg aspirin and 40 mg of simvastatin daily. The patient underwent right carotid endarterectomy the next day without complication.

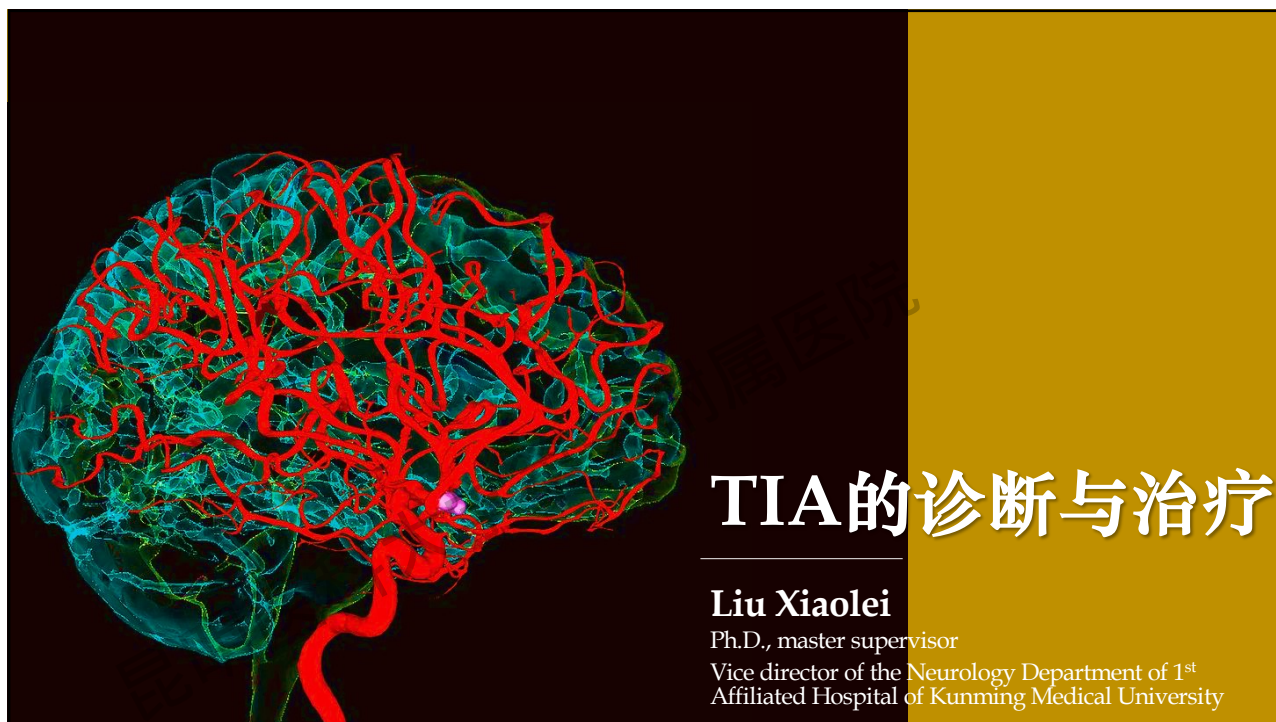
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COMMENT

- This patient had a transient ischemic attack and was at high risk of early recurrent stroke, although it was not identified as such by the ABCD² score
- Carotid artery stenosis is an important cause of a transient ischemic attack with a high risk of recurrence
- Early vascular imaging is required to identify this treatable cause of stroke
- Carotid revascularization should be performed as soon as reasonably possible if the patient is medically stable

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