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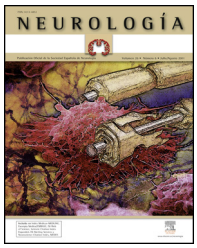

ORIGINAL ARTICLE

Rapid assessment of transient ischaemic attack in a hospital with no on-call neurologist☆

E. Palomeras Soler*, P. Fossas Felip, A.T. Cano Orgaz, P. Sanz Cartagena, V. Casado Ruiz, D. Muriana Batista

Servicio de Neurología, Hospital de Mataró, Mataró, Barcelona, Spain

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KEYWORDS
Transient ischaemic attack;
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Abstract
Background: Risk of stroke soon after a transient ischaemic attack (TIA) is high. Urgent care can reduce this risk. Our aim is to describe and evaluate the efficacy of rapid assessment of TIA patients in a hospital without a neurologist available 24 h a day.
Methods: In February 2007, we set up a protocol of rapid management of patients with symptoms consistent with acute TIA, with the aim of prioritising urgent care and reducing hospital admissions, without increasing risk of recurrences. We analyse our results since the protocol was implemented with particular focus on the analysis of delay in neurological and neurovascular assessment, percentage and reasons for hospitalisation, and stroke recurrence rates after 3 months.
Results: Four hundred and eleven patients were studied, with a final diagnosis of TIA in 282 (68.6%). Among other diagnoses, the most frequent were a vasovagal reaction (5.6%), and a confusional syndrome (4.6%). Delay between emergency arrival and neurovascular assessment was <24 h in 82% of cases, and <48 h in 93%. After neurological evaluation, 28.7% of the patients were immediately admitted to hospital (most common causes: severe stenosis of a large artery and crescendo TIA). The incidence of ischaemic stroke in TIA patients was 3.55% after 3 months, and 70% of them suffered the recurrence within the first week after the initial TIA.
Conclusions: In a hospital without a neurologist available 24 h a day, an early assessment and management of TIA patients can be carried out in accordance with the guidelines, and may avoid hospitalisation in most cases without increasing recurrence rates.

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* Corresponding author.
E-mail address: epalomeras@csdm.cat (E. Palomeras Soler).

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PALABRAS CLAVE
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Atención urgente;
Gestión;
Pronóstico

Evaluación rápida del ataque isquémico transitorio en un hospital sin guardias de neurología

Resumen
Introducción: Los pacientes que presentan un ataque isquémico transitorio (AIT) tienen un alto riesgo de tener un ictus a corto plazo. Una atención urgente puede reducir dicho riesgo. El objetivo es describir y comprobar la eficacia de un protocolo de atención rápida a estos pacientes en un hospital sin guardias de neurología.
Métodos: En febrero del 2007 se puso en marcha en nuestro hospital un protocolo de evaluación rápida del AIT, con el objetivo de priorizar la atención urgente y disminuir ingresos hospitalarios sin aumentar riesgo de recurrencias. Se analizan los resultados tras los primeros 5 años, incidiendo especialmente en los tiempos de valoración neurológica y neurovascular, motivos de ingreso y tasa de recurrencia a los 90 días.
Resultados: Han sido evaluados 411 pacientes, de los cuales 282 (68,6%) fueron finalmente AIT. Entre los otros diagnósticos, los más frecuentes han sido el episodio vasovagal (5,6%) y el cuadro confusional (4,6%). La demora entre la llegada a Urgencias y la valoración del neurólogo fue <24 h en el 82% de casos y <48 h en el 93,9%. Tras la valoración neurológica, se decidió el ingreso en el 28,7% de pacientes (causas más frecuentes: hallazgos en el Doppler y AIT de repetición). A los 3 meses, 10 pacientes (3,55%) presentaron un ictus, 7 de ellos (70%) en la primera semana desde el episodio.
Conclusiones: En un hospital sin guardias de neurología, es posible una evaluación rápida de los pacientes con AIT, de acuerdo con las recomendaciones de las guías, evitando la mayoría de ingresos y con un bajo índice de recurrencias.

Introduction

Transient ischaemic attack (TIA) is a focal neurological deficit of ischaemic origin that resolves spontaneously in less than 24 hours, and usually in less than 1 hour.[1] While these events may seem benign, the risk of stroke in a patient who has experienced TIA may be as high as 20% in the following 3 months, and the risk is especially high in the first few days after the episode.[2–5] For these reasons, TIA is regarded as a medical emergency, and considerable efforts have been made in recent years to reduce the accompanying risk of stroke. The main goals have been to identify and offer early treatment to those patients at the most risk, and several clinical practice guidelines have stressed the importance of providing them with urgent care.[6,7]

Historically, because of the short-term risk of stroke, patients with suspected TIA have always been hospitalised. This tendency is changing with the implementation of urgent care clinics that reduce the hospitalisation rates in this group. The French study SOS-TIA[8] found that providing 24-hour telephone care followed by rapid assessment was useful for early detection of patients at the greatest risk. Between 2003 and 2005, this system reduced the hospitalisation rate to 26%, and also lowered the rate of recurrence significantly. At the same time, the EXPRESS study, carried out in the UK, examined the effectiveness of referring patients to a specialist urgent care clinic on the day after the hospital visit. This initiative significantly reduced the recurrence rate.[9]

In the last few years, other models have also been developed to this end, and they are specific to the type of centre: rapid diagnosis in the emergency department or referral to an external urgent care clinic. Decisions may be based on clinical risk scales, principally the ABCD[2] score. Some of the more recent series, which have employed a variety of methods, report 90-day recurrence rates of 1.7%-3.2%.[10–12] Nevertheless, some authors question the benefits of non-hospital management of patients with TIA on the grounds that fibrinolysis can be administered more quickly to hospitalised than to non-hospitalised patients in cases of early recurrence. For this reason alone, hospitalisation may be cost-effective.[13]

In 2007, our hospital adopted a protocol for TIA intended to provide urgent care to patients, identify patients at the most risk, and avoid unnecessary hospital admissions. We present our results after 5 years of following the protocol.

Patients and methods

A neurologist is physically present at our hospital from 8.00 to 17.00 on workdays, but there is no 24-hour on-call neurology service. In February 2007, the hospital introduced its urgent TIA care protocol with the aim of reducing care delays and hospitalisation rates in this patient group. According to our protocol, the emergency department's initial assessment of a patient whose symptoms are compatible with TIA includes anamnesis, physical examination, laboratory analyses, electrocardiogram, and cranial computed tomography (CT). If the patient arrives during the neurologist's working hours, transcranial duplex ultrasound and Doppler ultrasound of the supra-aortic trunks are performed at the same time. Otherwise, the patient will remain under observation in a short stay unit so that the neurologist can complete the neurosonology study the following morning (unless the patient's age, functional status, or other reasons warrant an immediate neurosonology study). After the first