

Stroke in Childhood

Essay

*Submitted for Partial Fulfillment of Master Degree
in Pediatrics*

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2011

السكتة الدماغية في الأطفال

رسالة
توطئة للحصول على درجة الماجستير في طب الأطفال

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تحية طبية واحتراما وبعد

نتشرف بان نحيط سيادتكم علما بان مجلس قسم الأطفال وافق بجلسته المنعقدة بتاريخ ' / / م علي الطلب المقدم من ط / أيمن محمد السيد

بخصوص الموافقة علي تسجيل رسالة الماجستير في طب الأطفال وهي بعنوان
(السكتة الدماغية في الأطفال)

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تم عمل لجنة السيمانار بتاريخ المجلس والخطة البحثية للطبيب تتفق مع الخطة البحثية للقسم

وتفضلوا سيادتكم بقبول فائق الاحترام

رئيس قسم طب الاطفال

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List of Abbreviations

AAC	Alternative and augmentative communication
ACT	Anticoagulation therapy
AD	Autosomal dominant
AFOs	Ankle-foot orthoses
AIS	Arterial ischemic stroke
APTT	Activated partial thromboplastin time
AR	Autosomal recessive
ASA	Acetylsalicylic acid
AT-III	Antithrombin III
AVMs	Arteriovenous malformations
CNS	Central nervous system
CSE	Cardiac source of embolism
CSF	Cerebrospinal fluid
CSVT	Cerebral sino-venous thrombosis
CT	Computed tomography
CTA	CT angiography
CVT	Cerebral venous thrombosis
DAFOs	Dynamic ankle-foot orthoses
DWI	Diffusion-weighted imaging
EDAS	Encephalo-duro-arterio-synangiosis
EEG	Electroencephalogram
HIV	Human immunodeficiency virus
HS	Hemorrhagic stroke
ICA	Internal carotid artery
ICH	Intracerebral hemorrhage
ICP	Intracranial pressure

List of Abbreviations (Cont.)

ICU	Intensive care unite
INR	International normalized ration
IPH	Intraparenchymal hemorrhage
IPSS	International Pediatric Stroke Study
ITP	Immune thrombocytopenic purpura
IVH	Intraventricular hemorrhage
LMWH	Low molecular weight heparin
MCA	Middle cerebral artery
MELAS	Mitochondrial myopathy, encephalopathy, lactic acidosis, and stroke like episode
MMD	Moya moya disease
MRA	Magnetic resonance angiography
MRI	Magnetic resonance imaging
MRV	Magnetic resonance venography
MTHFR	Methylenetetrahydrofolate reductase
NHDS	National Hospital Discharge Survey
OWRS	Osler-Weber-Rendu syndrome
PAPS	Primary antiphospholipid antibody syndrome
PET	Positron emission tomography
PFO	Patent foramen ovale
PMM	Phosphomannomutase
PT	Prothrombin time
PTT	Partial thromboplastin time
RCT	Randomized controlled trial
rTPA	Recombinant tissue plasminogen activator

List of Abbreviations (Cont.)

SCD	Sickle cell disease
SPECT	Single photon emission tomography
STA-MCA	Superficial temporal artery-middle cerebral artery
STICH.....	Surgical Trial in Intracerebral Haemorrhage
STOP.....	Stroke Prevention Trial in Sickle Cell Anemia
TCD	Transcranial Doppler
TEE	Transesophageal echocardiography
TGF	Transforming growth factor
TIA	Transient ischemic attack
TTE	Transthoracic and transesophageal color-flow Doppler
TTP.....	Thrombotic thrombocytopenic purpura
UFH	Unfractionated heparin
UK	United kingdom
WARRS.....	Warfarin-Aspirin Recurrent Stroke Study
XR	X-linked recessive

Introduction

Stroke is chronic condition that may have serious consequences for a child's physical, cognitive, and behavioural functioning (*Koreneluk and Lee, 1998*).

Childhood stroke is increasingly recognized as an important cause of morbidity and mortality. Pediatric stroke affects 25 in 100.000 newborns and 12 in 100.000 children under 18 years of age per year (*Rebacca and Ichord, 2006*).

The world Health Organization has defined stroke as "rapidly developing clinical signs of focal (at times global) disturbance of cerebral function, lasting more than 24 hours or leading to death with no apparent cause other than that of vascular origin (*Sacco, 2005*).

In children, the clinical recognition of stroke is often difficult, leading to a considerable time delay between the onset of symptoms and the first encounter with a health care provider (*Gabis et al., 2002*).

Risk factors for stroke in childhood are different than those traditionally seen in adults. In pediatric population, ischemic and hemorrhagic stroke each accounts for approximately 50% cases, while in the adult population, hemorrhagic stroke is far less common, accounting for only 20% of stroke (*Ichord et al., 2005*).