

Pediatric headache questionnaire, exam and history forms for the chiropractor

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ABSTRACT

The academic arm of the European Chiropractic Union (ECU) is the European Academy of Chiropractic (EAC). Within the EAC are special interest groups (SIG) focusing on postgraduate education for chiropractors in the areas of pediatrics, neurology, clinical chiropractic and sports chiropractic. Children are one of the unique populations presenting to the chiropractor requiring a different skill set than that utilized to assess the adult patient. In recognition of this, the EAC's SIG for pediatrics has developed history, examination and questionnaire forms for children with headache. The aim of these forms is to assist the chiropractor in identifying red flags and to skillfully differentially diagnose headaches as they present throughout growth and development. The process of development of these forms is outlined, and three forms are presented in this article.

Key Words: pediatric headache, chiropractic pediatric, pediatric history form, pediatric examination form, pediatric red flags, pediatric questionnaire.

Introduction

Chiropractic education typically includes a cursory level of education within pediatrics¹ which varies from institution to institution. Chiropractors interested in pediatrics can pursue additional education through courses in continuing professional development (CPD), a diplomate, and/or a Master's degree. These are available through a range of providers. Surveys from 2004 and 2014 assessing random samples of licensed Canadian Doctors of Chiropractic and Naturopaths have shown that the majority of practitioners questioned treated children of all ages, but felt they their education did not provide adequate skills in assessment and treatment.¹

Triaging musculoskeletal (MSK) and non-MSK complaints is of the highest priority when assessing the pediatric patient with headache.² Some apparently benign headache presentations may have serious red flag causes, such as increased intracranial pressure, nocturnal epilepsy, possible brain tumor and/or cerebellar dysfunction.³ Table 1 provides a check list for Red Flags.

Other conditions which present with headache at first glance may be due to potentially disabling pathology, including mitral valve disease,⁴ hypothyroidism⁵ and epilepsy.⁶ Ability to triage is therefore a vital skill and knowledge base for practitioners to develop when seeing the pediatric patient with headache, as differential diagnosis and treatment vary significantly from the adult patient.⁷

Table 1. Red Flags³

✓/✗

Features of cerebellar dysfunction:	___ ataxia
	___ nystagmus
	___ intention tremor
Features of increased intracranial pressure:	___ night/early morning vomiting
	___ large head
	___ papilloedema
New neurological deficits:	___ recent squint
	___ focal seizures
Possible brain tumor:	___ progressive symptoms < 3 months
	___ "worst headache ever"
Nocturnal epilepsy:	___ abnormal movement or behavior during sleep
	___ strange noises during sleep
	___ extremely tired in the morning
	___ tongue biting
	___ enuresis
	___ falling out of bed
Waking up at night due to severe headache	___
Change in behavior	___
Change in personality	___
Change in coordination	___
Change in balance	___

Aims

The EAC is working to provide postgraduate education for practitioners. One focus of the EAC SIG pediatric group has been to work with the various European chiropractic educational institutions to standardize the level of education within pediatrics. Another primary goal is to raise the advanced education around pediatric practice on an institutional and individual level.

The pediatric SIG is a team of four, each with advanced education within chiropractic and/or pediatrics (post-graduate Master's degree or PhD), and each with expertise in clinical practice, research, and/or education.

Fungible pediatric headache questionnaires, history and examination forms specific to chiropractors and other manual therapists have not yet been made available. Consequently, a key initiative of the SIG over the past year has been to provide special history and examination forms particular to specific problems which present to chiropractors. The headache forms presented in this article have been designed to organize the history and examination for the pediatric headache.

Tables 2 is a questionnaire for the family to fill out, Table 3 is the history form and Table 4 provides an examination for ages 5-16, giving it form and consistency, aiding the practitioner in undertaking a thorough assessment.

These are intended as a screening tool for assessing the pediatric patient presenting with headache. The primary focus is on differential diagnosis of headaches throughout development. Two recent articles focus on headaches in children^{8,9} and are a good complement to these forms. One article focuses on differential diagnosis of common headaches in children presenting to the chiropractor⁸ and the other details the changing phenotype of migraine headache through growth and development.⁹ By highlighting red flag presentations,³ there is an emphasis on safety, particularly identifying and referring the ill child for medical assessment and care. These forms are helpful in reaching the goal of arriving at the correct diagnosis or diagnoses, in order that the proper management can be recommended.

Process

The pediatric headache questionnaire, history, examination

and red flag forms have been reviewed by all members of the SIG in an extensive, iterative process spanning nine months. Within the SIG an initial draft was created, multiple iterations were developed, and meetings were held to discuss and resolve disagreements by consensus. In total, three meetings were held between members of the SIG. This iteration was then shared with and reviewed by chiropractors with expertise in the pediatric patient, and their comments were reviewed by the author. The questionnaire was then translated into Swedish and used with a subset of patients to test its relevance.

Recommendations for chiropractors

The author recommend adopting these forms for clinical practice and to use them as an adjunct to the basic pediatric history and exam forms presented earlier.¹⁰ Just as these forms reflect the fact that the child is growing and developing, treatment is also adjusted based on age and development.

Additional special exam forms to complement the history and examination forms for common complaints presenting to the chiropractor, such as the crying infant, growing pains, and scoliosis are currently being developed. A series of recorded lectures to accompany these forms are in progress, discussing key aspects of the history and examination of the pediatric patient. These will be soon available through the European Chiropractic Union home page, European Academy of Chiropractic (EAC) and the General Education Network for Chiropractic (GEN-C).

Conclusion

These forms represent a minimum standard for assessing pediatric headache in patients to ensure safe and effective management. The implementation of these forms should not only raise competence of practitioners, but with widespread use, enable data collection on a large scale for future research. The work to provide specific clinical exam forms is to elevate the safety and quality of musculoskeletal care provided by chiropractors to babies, children, and their families.

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Table 2. Headache Questionnaire (HA): Children

Genetics: Family history headaches (HA): _____

What kind of headaches: _____

What are symptoms: _____

Do they respond to treatment: _____

Psychosocial situation:

Exposure to abuse or bullying: _____

Neurodevelopmental disorder (ADHD, ADD, ASP, other): _____

anxiety: _____ depression: _____

counselling: _____ gender identity: _____

Biomechanical: trauma history _____

(including fall _____ concussion _____ head _____ mouth injuries _____)

Health history

allergy _____ asthma _____ eczema _____ epilepsy _____

cardiac anomaly _____ CNS infection (borrelia) _____ intracranial bleed _____

Headache characteristics

How old are you today? _____ When did headache or headache episodes begin, what age? _____

Do you have more than one kind of headache? _____

Describe headaches symptoms: _____

Where is the headache pain? _____

Have headaches changed since they started? _____

Do you have neck pain or stiffness? _____

How long does a headache episode last? _____

How strong is the pain? 0= no pain, 10= worst pain ever: _____

Is your headache worse with running or straining yourself? _____

Is your headache worsened by prolonged screen time? _____ Studying or reading? _____

How much screen time (phone, iPad, laptop) per school day? _____ How much on weekends? _____

What triggers your headaches? _____

Are you stressed? _____

What relieves your headache? _____ Does sleep relieve headache? _____

How often do you take medication, what kind? _____ Does medication help? _____

Does the headache interfere with school _____ Sports _____ Social activities _____ Screen time _____

Do you see the board in school well? _____ Have you checked your vision? _____

History of Periodic syndromes

Infancy: colic _____ torticollis _____

Toddler: seeking dark room _____ head banging _____

Child: dizziness _____ leg pain _____ stomach pain _____ repeated vomiting _____ light sensitive _____

sound sensitive _____ nausea _____ vomiting _____ motion sickness _____

episodes of fever not related to an illness _____ joint pain _____

visual disturbances _____ seeing flashing spots _____ feeling pins and needles _____

behavior problems _____ ADHD _____

sleep history _____

sleep disturbances: grinding teeth _____ night terrors _____ nightmares _____ apnea _____ snoring _____

Table 3. Headache history children from 5 year

Family history HA: _____
 what kind: _____

Symptoms: _____

Treatment/outcome: _____

Psychosocial situation family and peers: signs of abuse _____ bullying _____

Neurodevelopmental disorder _____ anxiety _____ depression _____

Trauma history: head and/or neck _____ mouth _____ fall _____

Health history

allergy _____ asthma _____ eczema _____

CNS infection (borrelia) _____ intracranial bleed _____ surgeries _____

perinatal complications _____ illnesses _____ epilepsy _____

cardiac anomalies _____ hypothyroidism _____

medications/treatment: _____

other: _____

Headache characteristics

At what age did headaches begin _____ Where is the headache _____

Symptoms: _____

duration _____ intensity _____ frequency _____ neck pain _____

Have headaches changed since they started? _____

Exacerbating factors: physical activity _____ homework/screen time _____ other _____

Headache triggers _____

Aggravating factors _____

Relieving factors: sleep _____ rest _____ other _____

ADL impact (e.g. school attendance, social and sports activities): _____

Medication use and response: _____

screen time: _____ school days _____ weekends _____

Stress pattern of headache during holiday _____ Eye sight checked _____

History of periodic syndromes

Infancy: colic _____ benign paroxysmal torticollis _____

Toddler: seeking dark room _____ head banging _____

Child: vertigo _____ limb pain _____ abdominal pain _____ cyclical vomiting _____ photophobia _____

phonophobia _____ visual aura _____ sensory aura _____ nausea _____ vomiting _____

dizziness _____ pallor _____ motion sickness _____ anorexia _____

Behavior problems: _____

Sleep history: _____

Sleep Disturbances: _____ bruxism _____ night terrors _____ nightmares _____

apnea _____ snoring _____

Thoracic or low back pain: _____

Table 4. Headache Examination Child 5-16**Evaluation of musculoskeletal dysfunction in children with headache**

Postural examination forward head posture _____ kyphosis _____ upper cross syndrome _____
lordosis _____ scoliosis _____ torticollis _____
plagiocephaly _____

Manual joint palpation cervical/costovertebral/thoracic joints _____
cranio-cervical flexion test: _____ flexion-rotation test R: ____ L: ____
active ROM: cervical _____ thoracic _____ lumbar _____
range of motion shoulder joint: R: ____ L: ____ costovertebral joints _____
trigger point palpation cervical/thoracic musculature: _____
TMJ exam with asymmetry or orofacial pain: R: ____ L: ____
eye sight _____ eye tracking _____ accommodation _____ nystagmus _____

Neurological examination

mental Status: interaction with parents _____ following instructions _____
motor function and balance: hop _____ skip _____ jump _____ gait _____
stand on one leg (eyes open): R: ____ L: ____ eyes closed: R: ____ L: ____
finger to nose _____ rapid alternating hand movements: _____
standing eyes shut, feet together, resist gentle push to side : R: ____ L: ____
reflexes: _____
sensation: face _____ arms _____ legs _____
strength: _____ toe walk _____ heel walk _____ walk on toes _____ squeeze fingers _____
Babinski _____

Cranial nerves

CN1: identify specific smell with eyes closed _____
CN2: identify colors _____ numbers _____
CN3, 4, 6: eyes following object through visual field _____ pupillary response _____
CN 5: chewing _____
CN 7: smile, taste _____
CN 8: hearing, balance _____
CN 9: swallowing _____
CN 10: gag, swallow _____
CN 11: shrug shoulder _____
CN 12: stick out tongue _____

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