

A CLINICIAN'S PERSPECTIVE

Identifying Red Flags in Children

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Direct access gives the physical therapy profession a huge opportunity to be the primary assessor for all musculoskeletal care. With it also comes much greater responsibility to ensure we have the skills to provide an unbiased and thorough examination and evaluation of the person.

As was the case of a 12-year-old female patient seen in an outpatient clinic. At the time of the assessment, the patient looked unwell. The symptom and mechanical effect of the MDT evaluation ruled out derangement, dysfunction and posture syndromes. The OTHER category was ruled in, and in fact, the behavior of symptoms and mechanics was atypical. This case study demonstrates extra obstacles that I encountered during the subjective component of the exam due to her age. It also considers the question of when a patient should be referred out for further investigation.

As an MDT trained clinician, our assessment prior to treatment interventions will guide us on the nature of pain and the behavior of the patient's problem. The subjective examination enables us to create a provisional classification prior to the physical exam by ruling out possible diagnoses. Using the symptom location, the onset duration, Constant/Intermittent, B/W sections and safety/red flags helps us to make our provisional classification. We look for what the condition can and cannot be by letting the patient tell us the "truth" of their symptom behaviors based on unbiased questions regarding their symptoms. This will elicit the true condition of the patient. No matter how crunched we are for time, we can never skip our .

This 12-year old female patient with foot pain had several red flags to note in the history. The first was constant symptoms and a worsening presentation. Furthermore, the patient's 'better/worse' section demonstrated a consistent worsening of symptoms with all activities and no relief with rest. The unwell appearance of the patient was also concerning. Finally, she reported waking multiple times a night unable to find a position of relief forcing her to leave her bed.

The challenge I had with this patient was her young age. Her mother assisted in answering some of her health questions, which made it difficult to extract accurate information from the patient. The mother reported her health as being good, but when the question was redirected to the patient she reported her symptoms make her feel sick. She also stated feeling stomach pain on/off for the past couple of months as well. A point of emphasis for this age group is to ask follow-up questions that allow the patient in front of you to communicate what they are experiencing without assumptions that their parent's responses are an accurate description of the symptom behaviors. Following the history, the provisional diagnosis for her foot pain included derangement, as well as several red flags suggesting possible serious pathology.

The telling moment of the physical examination was the effect of posture correction on her symptoms. The patient's sitting posture was observed to be poor. Interesting, that with posture correction both her feet became numb and increased in pain intensity that continued to worsen over the course of one minute. The symptoms in her feet remained worse throughout the session. The baseline assessment of all lumbar spine movements was significantly limited due to pain, and her foot's active and passive ROM was significantly limited due to empty painful joint end feels.

The lumbar spine mechanical testing revealed no centralization or directional preference, but a relevant relationship to her foot symptoms. It was at this time that I discussed the need for the mother to return her to the MD for further diagnostic testing. As a result, the pediatrician ordered imaging that revealed a rare spinal tumor and referred the patient for follow-up with a neurosurgeon.

The lesson I learned from this patient was not to refer all patients out immediately with worsening symptoms, but to identify that this patient presented with several red flags while at the same time did not have a mechanical/physical examination that would lead to a favorable prognosis with conservative management. Also, to make sure we screen the spine on all extremity patients starting with posture correction.

It is essential to give every patient an unbiased mechanical evaluation. James Cyriax once said, "In each patient there is one truth" and we hold the biases of our opinions on what to do with these patients. It would be easy for clinicians to see this patient as a patient with a foot problem and give them treatment for the foot. However, as an MDT trained clinician, this system allowed me to let the symptoms speak for themselves. I am very thankful to Robin for that.



THE MCKENZIE INSTITUTE LOWER EXTREMITIES ASSESSMENT

Date _____

Name _____ Sex M / F

Address _____

Telephone _____

Date of Birth _____ Age _____

Referral: GP / Orth / Self / Other Other

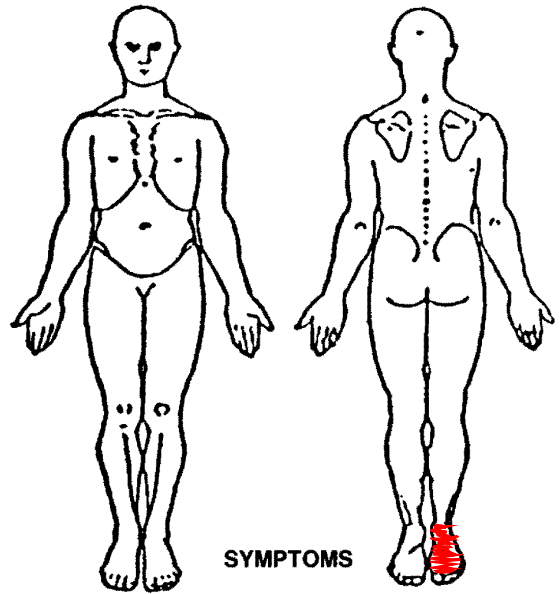
Work: Mechanical stresses _____

Leisure: Mechanical stresses _____

Functional disability from present episode _____

Functional disability score _____

VAS Score (0-10) _____



HISTORY

Present symptoms _____

Present since _____ Improving / Unchanging / Worsening

Commenced as a result of _____ Or No Apparent Reason

Symptoms at onset _____ Paraesthesia: Yes / No

Spinal history _____ Cough / Sneeze +ve / -ve

Constant symptoms: ? Intermittent Symptoms: _____

Worse ? ~~bending~~ ~~sitting~~ / ~~rising~~ / first few steps standing walking stairs squatting / ~~kneeling~~
 am / as the day progresses / pm when still / on the move Sleeping: prone / sup / side R/L
 Other _____

Better ? ~~bending~~ ~~sitting~~ standing walking stairs squatting / kneeling
 am / as the day progresses / pm when still / on the move Sleeping: prone / sup / side R/L
 other _____

Continued use makes the pain: Better Worse No Effect Disturbed night Yes / No

Pain at rest Yes / No Site: Back / Hip / Knee / Ankle / Foot

Other Questions: Swelling Clicking / Locking Giving Way / Falling

Previous episodes _____

Previous treatments _____

General health: Good / Fair / Poor _____

Medications: Nil / NSAIDS / Analg / Steroids / Anticoag / Other _____

Imaging: Yes / No _____

Recent or major surgery: Yes / No _____ Night pain: Yes / No _____

Accidents: Yes / No _____ Unexplained weight loss: Yes / No _____

Summary Acute / Sub-acute / Chronic Trauma / Insidious Onset

Sites for physical examination Back / Hip / Knee / Ankle / Foot Other: _____

EXAMINATION

POSTURAL OBSERVATION

Sitting Good / Fair / Poor Correction of Posture: Better / Worse / No Effect / NA Standing: Good / Fair / Poor
 Other observations: \uparrow \rightarrow

NEUROLOGICAL: NA / Motor / Sensory / Reflexes / Dural \uparrow $\rightarrow \bigcirc$

BASELINES (pain or functional activity): _____

EXTREMITIES Hip / Knee / Ankle / Foot

MOVEMENT LOSS	Maj	Mod	Min	Nil	Pain
Flexion					\uparrow
Extension					\uparrow
Dorsi Flexion					\uparrow
Plantar Flexion					\uparrow

	Maj	Mod	Min	Nil	Pain
Adduction / <u>Inversion</u>					\uparrow
Abduction / <u>Eversion</u>					\uparrow
Internal Rotation					
External Rotation					

Passive Movement (+/- over pressure) (note symptoms and range): _____ **PDM** **ERP**
 \rightarrow \rightarrow

Resisted Test Response (pain) _____ \rightarrow

Other Tests _____

SPINE

Movement Loss \checkmark \rightarrow
 Effect of repeated movements \uparrow \bigcirc \bigcirc \uparrow \bigcirc \bigcirc
 Effect of static positioning _____
 Spine testing Not relevant / Relevant / Secondary problem _____

Baseline Symptoms _____

Repeated Tests	Symptom Response		Mechanical Response	
	During – Produce, Abolish, Increase, Decrease, NE	After – Better, Worse, NB, NW, NE	Effect – \uparrow or \downarrow ROM, strength or key functional test	No Effect
Active/Passive movement, resisted test, functional test				
Effect of static positioning				

PROVISIONAL CLASSIFICATION

Extremities

Spine

Dysfunction – Articular _____ Contractile _____
 Derangement _____ Postural _____
 OTHER _____

PRINCIPLE OF MANAGEMENT

Education _____ Equipment Provided _____
 Exercise and Dosage _____
 Barriers to recovery _____
 Treatment Goals _____