HANDS-ON

Editor Jim Meadows

Volume 2, Issue 1
January 2005

Inside this issue:

New This Issue a Crossword

Editorial: Rating Pain

Measuring Pain

The reason for this editorial is that I have noticed lately that PTs on my courses have varying and often incorrect ideas on why they are using numeric or visual analogue pain scales and I would like to give my perspective on the issue. Over the past few years there has been a move towards using a numeric scale for rating pain. There is little doubt that this move has been accelerated, if not initiated, by the US insurance companies who are for the large part demanding its use on their forms. But leaving the troubled waters of insurance companies aside, the question needs to be asked whether or not using a visual analogue scale or a numeric scale for pain grading is clinically such a good idea. The use of these types of scales goes back to research so that reports of pain intensity could be standardized on an ordinal scale so used to staticize (is that a word?) changes in pain intensity with interventions of interest. The scales were not intended for clinical use although they are utilized here more than anywhere else. To me the most ridiculous aspect of pain scales is their use period. For a profession that is trying to become more scientific you have to wonder at the use of a measure that has been validated against a gold standard that itself was previously in widespread use, was cheap and required little training to use. The gold standard of the validity studies for the pain scales was the patient's report of pain intensity. Somebody out there please explain the logic and science of this.

Some of the reasons for using a numeric pain scale (and this discussion will concentrate on the numeric scale as this is the pre-eminent scale in clinical practice) is that compared to a verbal

(Continued on page 2)

Upcoming Courses

Upper Limb	Baltimore, MD	
Feb 18-20	Spinal Manipulation (2)	Dallas, TX
Feb 25-27	Level 3 Lower (1)	Madison, WI
Mar 10-15	Level 3 ?	Colorado Springs, CO

See main calender for rest of course dates

For further information on courses contact jim@swodeam.com

December's Who Said It?

Albert Einstein

As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality.

January's Who Said it?

#1 A fanatic is one who can't change his mind and won't change the subject.

#2 There are 10^11 stars in the galaxy. That used to be a huge number. But it's only a hundred billion. It's less than the national deficit! We used to call them astronomical numbers. Now we should call them economical numbers.

NB. This American died in 1988 so it is even truer today.

Editorial Continued

description of pain intensity it is that it is more objective, that it provides absolute levels of the patient's pain, that it more easily demonstrates changes, that the patient understands it better, that the therapist understands it better, that it is more scientific, that the insurance companies require it. With the exceptions of the last two arguments none of the above are at all true.

It is certainly not more objective just because you write down a number in place of a word, in fact it is arguable that it is less objective. First the scale has to be understood by the therapist, then it must be explained to the patient who then has to convert his/her pain experience into an unfamiliar scale, then the therapist has to convert the patient's conversion into his/her conception of the scale. Without detailed training in the scale by both the therapist and the patient there is no compelling reason to believe that these conversions result in an accurate understanding of the patient's pain level by the therapist. Further, pain is not an objective experience but a subjective one and no amount of fiddling with scales will make it objective, so the attempt to do so is just plain silly. Lets look at objectivity in the explanation of the scale, because even if the scale was objective, a subjective explanation of the scale would negate such objectivity even if it existed. It is the upper end of the scale that is problematic. The "10" is variously described as "emergency room pain", the "worse pain you can imagine", "labor pain", "suicide pain", and so on. For me the worse pain imaginable is having a large rusty, red hot, blunt knife inserted into a particularly sensitive body part and twisted compared to this pretty much all musculoskeletal pain would pale into insignificance. What now is a 3 on this scale. None of these descriptors are any more objective than saying the patient a 10 is excruciating pain that is intolerable and requires immediate and profound medication. As you can see the so-called objective scale is made subjective by describing the 10 in terms of subjective experience. Even given, for the sake of argument, that the 10 is objective how objective is the 8. Is this excruciating, severe or moderately severe. No this scale is not more objective than words and is likely to be less precise.

That the numeric pain scale is a tool that will allow the therapist to know the absolute level of the patient's pain is also untrue. There are no methods yet known, and I include the dolorometer in that statement, that allow absolute levels of pain to be determined and it may be that to discuss pain in terms of absolutes is illogical anyway as pain is not a sensation but an experience. Pain is not exactly, and often is not even in the same ballpark, proportional to the noxious stimulus. The amount of pain the patient experiences for a given stimulus can vary wildly with time of day or month, mood, how ready the patient is for the pain, how much damage the patient believes is being done (that is how severe the pathology

(Continued on page 3)

Letters and Comments

Am I not being provocative enough for you or do you all agree with me.

is believed to be), cultural background, etc.

That these scales more easily demonstrate changes in pain than the patient's words may or may not be true. But it cannot, without an awful lot of explanation, tell the therapist how the pain has behaved over a given period such as a day or a weekend with anything like the economy and detail that the patient can provide with the use of words. If the scales drops say two levels between two treatment sessions does this imply that the patient has improved by 20%. It would do if the scale was linear but is it? How did the therapist describe this aspect of the scale (my impression is that this aspect is not explained, the assumption being that the patient would understand it to be linear). But is this assumption warranted. With higher levels of pain is a drop of two levels from say a 9 to a 7 more or less significant to the patient tha a two level drop from say 4 to a 2.

As far as I know, there is no evidence that the patient or therapist or both understand the numeric scale better than words. And even if it were true, then it is probable that the patient would need more training in the scales than is usually given if conversion from words to numbers is to be accurately understood by both parties and to the other parties to whom that information is to be communicated. I once had a patient who was an engineer and made the scales logarithmic (bloody-minded no doubt but illuminating) so that his 3 was quite severe and changes in the pain were almost non-existent even though his pain levels dropped significantly and rapidly. We are humans and think in words and images not in numbers, unless you are a trained physicist or mathematician and probably not even then. To force the substitution of numbers for words cannot result in as accurate determination of an experience as when words are used.

As far as it being more scientific, well yes it is, given that it is used in scientific research but so what. The clinical therapist is not engaged in hard-core scientific research and the tools we use should be the ones that best help us treat our patients. They are patients and not subjects after all. It is also unarguable that some insurance companies require this method of reporting and you must render unto Cesar that which is Cesar's (or at least you must if you want to be paid) but this does not mean that you have to use a particular reporting method for clinical practice if it is not optimal.

Prior to the rise of numeric pain scales the therapist would have a conversation with the patient that would go something like "How bad is your pain?" to which the patient might reply "Severe". Everybody now knew what the patient's description of the pain level meant. Now the conversation goes something like "Zero is no pain and 10 is pain that will take you to the emergency room, now on that scale how bad is your pain?" To which often comes the reply "10" leaving the therapist wondering why the patient is not at the emergency room. Or the patient says it is an 8 leaving the impression that the pain is severe. How this is different from the patient saying the pain is severe is beyond me. So for me using numeric or VA scales reduces precision in the assessment of pain intensity, tends to reduce the perceived need to dig deeper into pain behavior, gets in the way of meaningful conversation between the therapist and the patient and may reduce the patient's problem from a human scale to a number scale. But I suppose that in the absence of hard evidence to the contrary and probably more importantly in the absence of an authoritarian statement repeated many times by many people over a long period, these scales are here to stay so lets see if there is a better way of using them.

Rather than using the "10" to measure an absolute pain level why not use it the way it was designed to be used, to monitor changes in the patient's pain as a result of time and intervention. The 10 now becomes the worse this pain has been since its onset so for example after a whiplash, the patient can state that immediately it was a 2 but on waking the next morning it was a 7 and now a week later it averages a 5 with spikes reaching 7 and lows of 0. This would suggest that there was no serious injury to muscle or bone, as typically there would be relatively immediate severe pain, but that moderate inflammation was a factor. This also leaves the patient free to state that after treatment it went to a 12 (or maybe we don't want that ability!). Or you can compare a current episode of back pain with a previous one with this episode's maximum being 10 but the previous episodes being a 15 so that you "know" that this episodes is maybe not half as bad as the previous episode but at least substantially less. But you are still forced to deal with the fact that only the patient knows how bad the pain is and he/she can best describe it in words.

Try talking to your patients instead of measuring them.

Related Articles, Links

Good M, Stiller C, Zauszniewski JA, Anderson GC, Stanton-Hicks M, Grass JA. Sensation and Distress of Pain Scales: reliability, validity, and sensitivity. J Nurs Meas. 2001 Winter;9(3):219-38.

Blake Bulloch, MD and Milton Tenenbein, MD. Validation of 2 Pain Scales for Use in the Pediatric Emergency Department. ELECTRONIC ARTICLE. PEDIATRICS Vol. 110 No. 3 September 2002, pp. e33

S. Suraseranivongse*, U. Santawat, K. Kraiprasit, S. Petcharatana, S. Prakkamodom and N. Muntraporn. Cross-validation of a composite pain scale for preschool children within 24 hours of surgery. British Journal of Anaesthesia, 2001, Vol. 87, No. 3 400-405

Swodeam Courses 2005

2004

	Course	**Location**
Jan 7-9	Level 3 Lower	St. Louis, MO
Jan 14-16	Chronic MVA	Fairfax, VA
Jan 22-24	Acute MVA	Helena, MT
Jan 28-30	Level 3 Lower	St. Louis MO
Feb 4-6	Spinal Manipulation (1)	Dallas, TX
Feb 11-13	Upper Limb	Baltimore, MD
Feb 18-20	Spinal Manipulation (2)	Dallas, TX
Feb 25-27	Level 3 Lower (1)	Madison, WI
Mar 10-15	Level 3 ?	Colorado Springs, CO
Mar18-20	Level 3 Lower (2)	Milwaukee, WI
Apr 1-3	Level 3 Upper (1)	Fairfax, VA
Apr 22-24	Level 3 Upper (2)	Fairfax, VA
Apr 29-May 1	Spinal Manipulation (3)	Dallas, TX
May 6-9	Manual Therapy Symposium	Quebec City, PQ
May 13-15	Spinal Manipulation (1)	Syracuse, NY
May 20-22	Peripheral Manipulation	Freemont, CA
June 10-12	Chronic MVA	Boston, MA
June 14-20	NAIOMT Conference	Washington, DC
July 15-17	Level 2 Upper (1)	St. Louis, MO
July 22-24	Spinal Manipulation (1)	Calgary, AB
July 29-31	Spinal Manipulation (2)	Calgary, AB
Aug 5-7	Level 2 Upper (2)	St. Louis, MO
Aug 19-21	Spinal Manipulation (3)	Calgary, AB
Aug 26-28	Acute MVA	Tulsa, OK
Sep 9-12	Differential Diagnosis	Portland, OR
Sep 16-18	Level 1 (1)	Dallas, TX
Oct 2-4	Chronic MVA	Berrien Springs, MI
Oct 7-9	Chronic MVA	Detroit, MI
Oct 10-13	Clinical	Detroit, MI
Nov 4-6	Level 3 Lower (1)	Fairfax, VA
Dec 2-4	Level 3 Lower (2)	Fairfax, VA

All courses unless specifically stated are combinations of lecture and lab, usually about 50/50. Each course is organized by a local coordinator and for contact to that person please email Jim Meadows at jim@swodeam.com

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For further information on courses contact jim@swodeam.com

Diagnosis Vs. Etiology Vs Triggers

At first glance the difference between the three terms diagnosis appears to be obvious but I find this difference one of the more difficult concepts to get across to students in my classes. Diagnosis is from Latin meaning to know about (dia meaning through or about and gnosis meaning knowledge or judgment) and etiology means the study of cause (aetia meaning cause and ology study or more literally discourse), while trigger in this context means *an act that sets in motion some course of events*. Leaving aside the habitual and almost universal misuse of the word etiology, which when used to ask about the cause of a disease literally means is there a science of the cause of this disease (although usage eventually defines the word), the two words are completely different. There are, however, times when they can be one and the same thing but lets first look at a clear difference between the two words. The example comes to mind of tennis elbow or lateral condylitis or the elbow (although is it the condyle that is really inflamed).

An office worker who is not particularly active decides that he is going to paint the house over a weekend. He buys his supplies, borrows a ladder and starts to paint, the first day he is at it for 8 hours at the end of which the elbow is starting to feel the effects of the unusual activity, by late evening the elbow is downright painful and by the next morning painful and essentially useless, fortunately he has finished the front of the house because there is not going to be any more painting today or in the foreseeable future. On examination three days later the elbow is limited in extension, passive wrist flexion is also painful and limited and there is painful weakness over the condylar attachment of the common extensor tendon. The diagnosis of acute tendonitis of the condylar origin common extensor is made. The patient asks for the most likely cause and is told that the problem is due to over-use of the wrist extensor muscles. Diagnosis and etiology. Nobody asks about triggers because reasonably the trigger and etiology is one and the same thing. This is the easy case, the diagnosis is simple, the etiology is probably the same as the trigger and the treatment is simple enough (resolve the inflammation and facility healing) to arrive at, the prognosis good. But less clear-cut and more difficult cases are the norm.

A carpenter notices a gradual onset of lateral elbow aching that is increasing over time. It is worse when he works harder, easier on the weekend and seems to be related to the amount of hammering he is engaged in. He has been doing the same job in the same environment for many years without ill effect. On examination he has full range of motion at the elbow, isometric extension and radial deviation are painful but strong and there is tenderness on palpation at the condylar attachment of the common extensor tendon. A very reasonable diagnosis of common extensor tendonosis (not tendonitis) is made and a very unreasonable etiology of overuse offered to the patient. Typically the word trigger, the hammering, is not mentioned as the etiology and the trigger are considered by this clinician as the same (assuming a trigger is even considered).

This scenario is very typical; little consideration is given to the cause of the tennis elbow, the physician and often the therapist simply thinking that it is caused by overuse even though this patient has been involved in the same activity in the same way for years. But this approach leads to the pathology being addressed without the same courtesy being given to the cause except to suggest that a period of rest from the putative over-activity being taken. This is why the majority of tennis elbows do not respond well to treatment, even when that treatment includes forced rest by use of a plaster cast. More often than not the putative cause is an activity that is completely routine or exceptionally minor with the carpenter told that his repetitive hammering is the cause even though this hammering has been habitual and without ill-effect for many years. It is the activity that is usually considered the etiology of the tennis elbow although it is unreasonable to assume that minor or habitual activities can cause a tendonopathy without some type of pre-existing condition predisposing the tendon to breakdown (but more on this aspect of tendonopathy in a future issue). It is the underlying predisposition(s) that is(are) the etiology(ies) or more properly genesis or one of a number of geneses of the tennis elbow and the activity that is the trigger. In pursuit of this our therapist examines the wrist and finds a palmar subluxation (fixation) of the Scaphoid and feels that this could easily be a predisposing factor.

Using reasonable definitions, for our purposes, of the terms be as follow:

Diagnosis: a definitive statement on the pathology and tissue that is the source of the patient's complaints.

Etiology: the predisposing factor or factors that are the cause of the pathology.

Trigger: the immediate factor that causes the pathology to become symptomatic.

We can, in the case of our carpenter, make the following statements with some confidence: the diagnosis is tendonopathy (probably tendonosis) of the condylar attachment of the common extensor tendon, the etiology is a palmarly subluxed (fixated) carpal and the

(Continued on page 6)

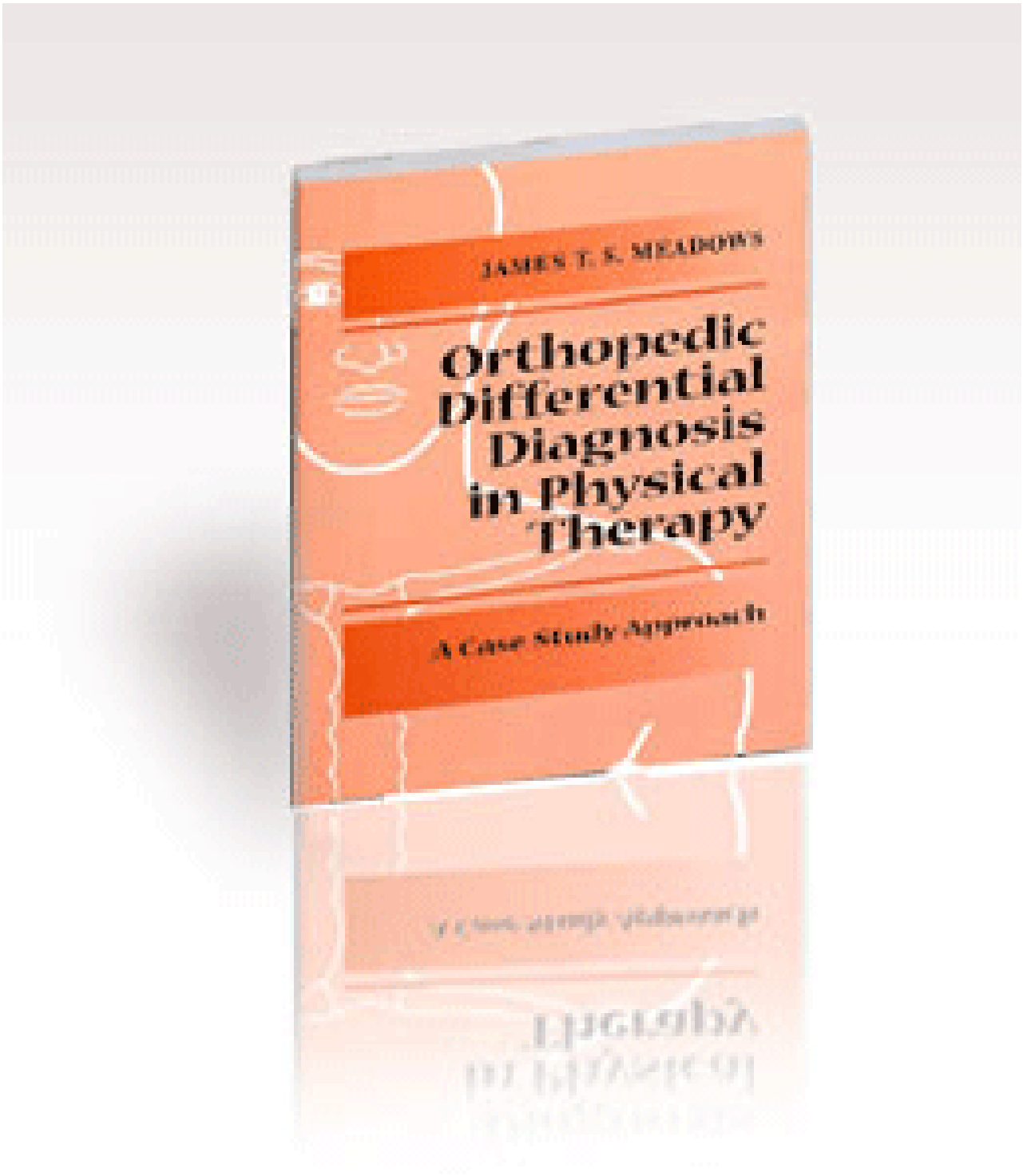
trigger was the hammering. But here lies another problem. Lets assume that the therapist finds an abducted ulna and feels that this is contributing or causing the tendonopathy. Is the subluxed carpal a diagnosis or an etiology? In general terms it is both but for the purposes of the immediate clinical management of the tennis elbow and according to the defintion above it is an etiology. The immediate management is to rid the patient of the symptoms and to restore full function. These goals can be obtained by treating the local pathology with local treatments such as appropriate rest (using a nail gun and tennis elbow support) frictions, exercises, stretching, manipulation etc. and treating the carpal subluxation with manipulation and stabilization (most probably through the use of a wrist orthosis).

The relationships between the diagnosis, etiology, trigger and management must be explored. The symptoms would not exist without the predisposition and so no diagnosis would be necessary and the trigger must occur to make the pre-existing pathology caused by the predisposition symptomatic. In the example used the etiology was internal to the patient but it may as easily have been a change in the size of the handle of the hammer, working overhead instead of horizontal, a prolonged vacation. The trigger may have been unrelated to his work such as carrying a suitcase on the vacation or taking up chess! In any case, the principle remains the same, make the diagnosis, determine the etiology and trigger and deal with each.

It should be clear that the diagnosis must be made first. It is logically impossible and practically confusing to try to arrive at an etiology before the condition that it predisposes to is established. This would seem to be self-evident yet on courses students often have a tendency to exactly this. For example returning to tennis eblow, commonly the neck is examined before the elbow. If the patient is complaining of elbow pain and the pain is quite obviously related to hand-elbow function then the hand-elbow should be examined before the neck otherwise both the patient and the therapist becomes confused. The patient cannot understand why, when they complain of quite obvious elbow pain the therapist is concentrating on the neck and the therapist has to be at a loss as to what to do for anything found in the neck until the pathology at the elbow is established. For example is a hypomobility is found at C5/6 how can its relevance to the elbow pain be determined until the local pathology is determined. This is not the same as a patient complaining of neck pain being referred down the arm to the elbow where the history clearly excludes the function of the upper limb as causing the pain. Now it makes little sense to examine the elbow until the neck has been cleared. The principle is obvious, you cannot establish the etiology until the diagnosis is made.

Sometimes this does not work in the long-term in which case look to see what you have missed. If the diagnosis is accurate, the etiology needs to be explored further and if another is found that should be dealt with. But it may be that a secondary etiology is present and is causing the primary etiology. Now the first etiology becomes a secondary diagnosis whose etiology may be a cervical dysfunction that results in loss of optimal control of wrist stabilization. Now the tennis elbow, carpal subluxation and the neck problem all have to be dealt with for long-term improvement. This may go on and on with extension of the examination for predispositions in the thorax, shoulder, and elbow itself. As with most things we do, it is not clear-cut, but a clear division between diagnosis and etiology needs to be maintained for clinical reasoning purposes. We need to be as precise as possible in our language so as to be as precise as possible in our thinking.

An article on tennis elbow in the next issue will use these principles to common presentations of the condition.



Orthopedic Differential Diagnosis in Physical Therapy by Jim Meadows deals with the analysis of the subjective and objective examinations primarily based on the concepts of James Cyriax. The book is in three parts, the first discusses general principles in diagnosis, the second with specific issues in each spinal region and the third offers interactive case histories that use the principles detailed in the earlier sections of the book. The book is intended for all levels of physical therapist including the pre-professional student.

Prices vary but average out at about $40 US and the book may be purchased through Amazon.com or ordered through a local medical book store. Swodeam Consulting does not sell the book by arrangement with the publishers Magraw-Hill.

NAIOMT USA

MARK YOUR CALENDAR

NAIOMT's SYMPOSIUM 2005
"MANUAL PHYSICAL THERAPY; MYTH OR MASTERY'

When: Friday June 17, 2005
Followed by multiple Specialty Course offerings
Saturday and Sunday June 18,19 2005
Location: Marriott Key Bridge Hotel
Alexandria, Virginia
(just across the bridge from Washington DC)

Main Features of the program include:

Lectures

"A Sensible Approach to Evidence Based Practice in Manual Physical Therapy"
Ann Porter-Hoke and Jim Meadows

"Manipulation - Its Beginnings and Our Future"
Cliff Fowler and Erl Pettman

Break-Out Sessions on Manual Therapy

Whiplash
Sports Related Injuries
The Aging Athlete
Foot and Ankle Disorders
TMJ Dysfunction

Pre and Post-Conference Courses Include

The Complicated Patient-Factors Influencing Pain and Healing
The Functional Shoulder Girdle
Peripheral Manipulation
Complete Approach to the Assessment and Treatment of the Lumbar Hypomobility and Instability

Check NAIOMT web page soon for details and registration:
www.naiomt.com

Manual Therapy Videos Now Available in DVD.

The video series manual therapy is now available on DVD. The VHS tapes have been converted to into 10 DVDs each with an interactive menu. The 10 discs cover differential diagnosis, selective tissue tension testing basic and advanced biomechanical examination and diagnosis, biomechanical treatment and the assessment and treatment of the post-MVA patient. All areas of the body including the spine, peripheral joints, TMJ, SIJ and ribs are covered.

The video was made and produced at KWGN-TV in Denver, CO and as such is of professional quality and includes picture-in-picture of picky or complex techniques.

The full retail cost of the set is $700 but for a limited time subscribers to Hands-On and previous students of Jim Meadows and to past purchasers of the tapes can buy the set at 50% discount, a cost of $350 including mailing and handling (Canadian Dollars at par with US Dollars). To order send a cheque made payable to James Meadows to:
413 Interamerica, Ste. 1
PMB AJ01-7,
Laredo, TX, 78045

For further information go to my web site at www.swodeam.com or contact Jim Meadows at jmeadowspt@aol.com or by phone at 586 596 7424.

December's Quizzes for Fun: Solutions

Find the Words. Bonus; there is the name of an old TV show in here, find it for extra points but no extra reward!

F	C	R	U	C	I	A	T	E	T
R	R	O	L	A	L	D	R	A	S
A	I	N	A	R	T	E	N	R	S
G	B	E	B	P	O	N	S	A	V
G	I	D	R	I	W	O	L	P	A
L	F	D	O	B	I	M	A	S	S
E	O	L	N	M	B	A	E	Y	T
R	R	E	T	O	E	X	I	S	U
O	M	E	A	X	O	N	S	S	S
C	T	R	A	C	T	I	O	N	D

The TV show is Fraggle Roc(k), give me the "r". It's the first letter and down.

A. Answer the following about anatomy.

1. Define the word myotome

Clinically speaking it is a muscle or group of muscles exclusively supplied by one spinal segment. Embryologically speaking it is

2, Give one example of a myotome

There are not too many as most muscles are supplied by numerous spinal segments but the multifidus and probably the anterior and posterior suboccipital muscles are among them.

3. Define the term key muscle

A muscle that is most representative of innervation from a single segment.

4. Give an example of a key muscle

Quadriceps as being supplied by L3.

B, Answer the following on mechanics.

1. Define the term traction: The Hyperdictionary (www.hyperdictionary.com) offers "(orthopedics) the act of pulling on a bone or a limb to relieve pressure or align parts in a special way during healing." For us in manual therapy this is not specific enough as any type of pulling is traction and the word becomes meaningless. We tend to use it mostly in the shoulder and in the spine where it is used in two different ways. In the lumbar spine it is the force that tends to longitudinally separate the vertebral bodies form each other, the shoulder it is the force that tends to produce and inferior glide of the humeral head on the glenoid. **We already have a word for the latter-shear and so the word should be used as the force that tends to produce equal separation of surfaces, that is distraction.**

2. Define the term shear: **a force that tends to produce linear movement**

3. Define the term torque: **a force that tends to produce rotation**

4. Define the term toque: **a winter hat worn by Canadians and longshoremen everywhere**

C. Answer the following on pathology

1. What are the main clinical characteristics of inflammation: **heat, significant pain and irritability. Redness comes with a special type of inflammation, that caused by systemic arthritis or infection.**

2. How can you establish absolute levels of pain: **you can't, it is always subjective and changes from individual to individual and with context**

3. How can you establish relative levels of pain: **you have to ask the patient how bad it is and how it**

affects function. The pain scales do this and so does talking to the patient.

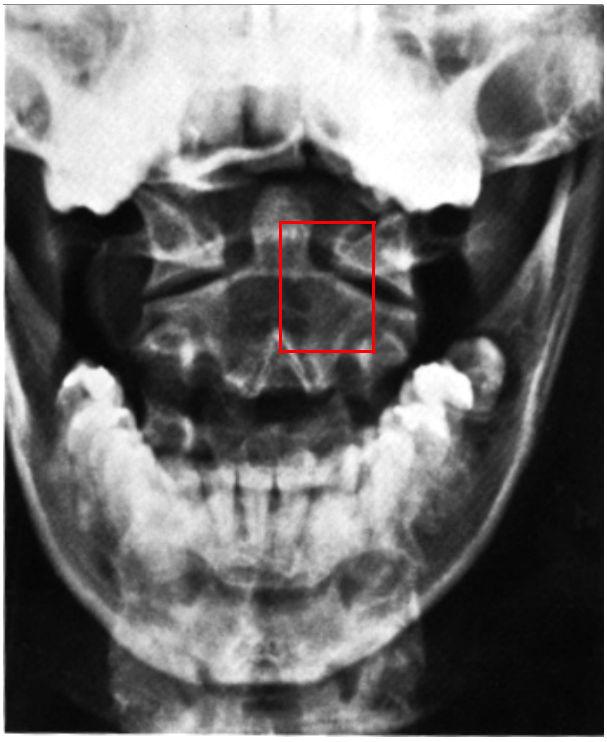
4. What is the advantages of using a numeric or visual analogue system of rating pain: **for clinical purposes I cannot see any advantages and I see many disadvantages not the least of which is substituting numbers for conversation. See this issue's editorial**

D. Answer the following questions on research

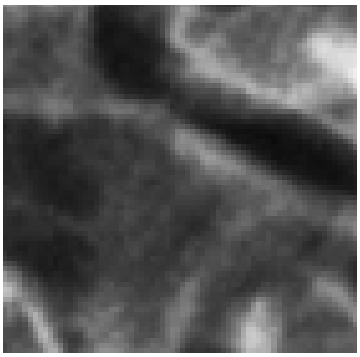
1. What is meant by the power of a study. **Portnoy and Watkins in Foundations of Clinical Research 2nd. Edition define it as the "probability that a test will lead to rejection of the null hypothesis, or the probability of attaining statistical significance." They go on to say that it can be thought of as sensitivity that is the likelyhood that it will detect important clinical differences.** Sample size and effect size appear to be the most important factors in strong power.
2. How is a good sample size determined. **This is determined, for the most part by the effect size and has been tabulated one against the other.**
3. What is meant by the term "gold standard". **Again from Portnoy and Watkins "An instrument that is considered a valid measure and that can be used as the standard for assessing validity of other instruments." In short the best instrument available.**
4. What is the difference between average and mean. **None. Both are measurements of central tendency obtained by addition of the values and then dividing the sum by the number of values.**

I have used Portnoy and Watkins excellent book for some of these definitions. This is a very complete book on Research methods and statistics and its application to clinical practice and I can recommend it to we dinosaurs out there who are lost or intimidated by research but who want to get at least a working knowledge of the subject.

Foundations of Clinical Research—Applications to Practice 2nd. Edition. Prentice Hall Health, NJ. 2000.



Name That Structure
December's Answer



Name That Structure

This image depicts an anomaly, what is it and what, if any clinical significance does it hold.

This is a trefoid (three leaf) canal and it significantly predisposes to stenosis of the spinal canal.

January's Quizzes for Fun

A. Biomechanics

1. Define the word saddle or sellar joint
2. What is the difference between a modified and unmodified sellar joint
3. Define the word ovoid joint
4. What is the difference between a modified and unmodified ovoid surface
5. How many degrees of freedom does each surface normally afford

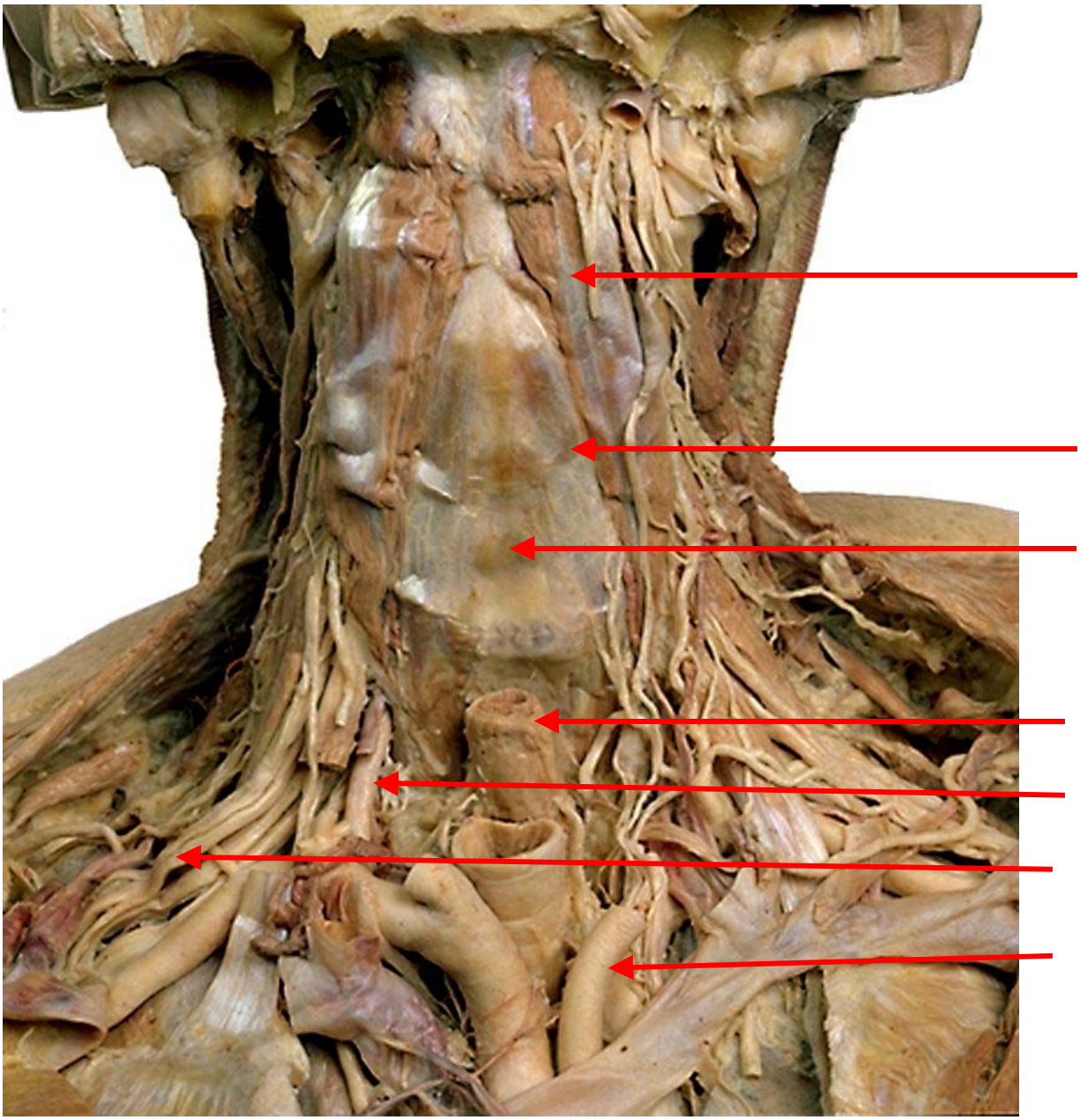
B. Pathology. You believe a patient with chest pain may have shingles answer the following questions on the disease.

1. What is its pathology
2. What is its etiology
3. What is the age group that most commonly contracts the condition
4. When can you expect the vesicles to erupt
5. What is its treatment

C, Research

1. Define the term face validity
2. What are the pros and cons of face validity
3. What is the difference between validity and reliability

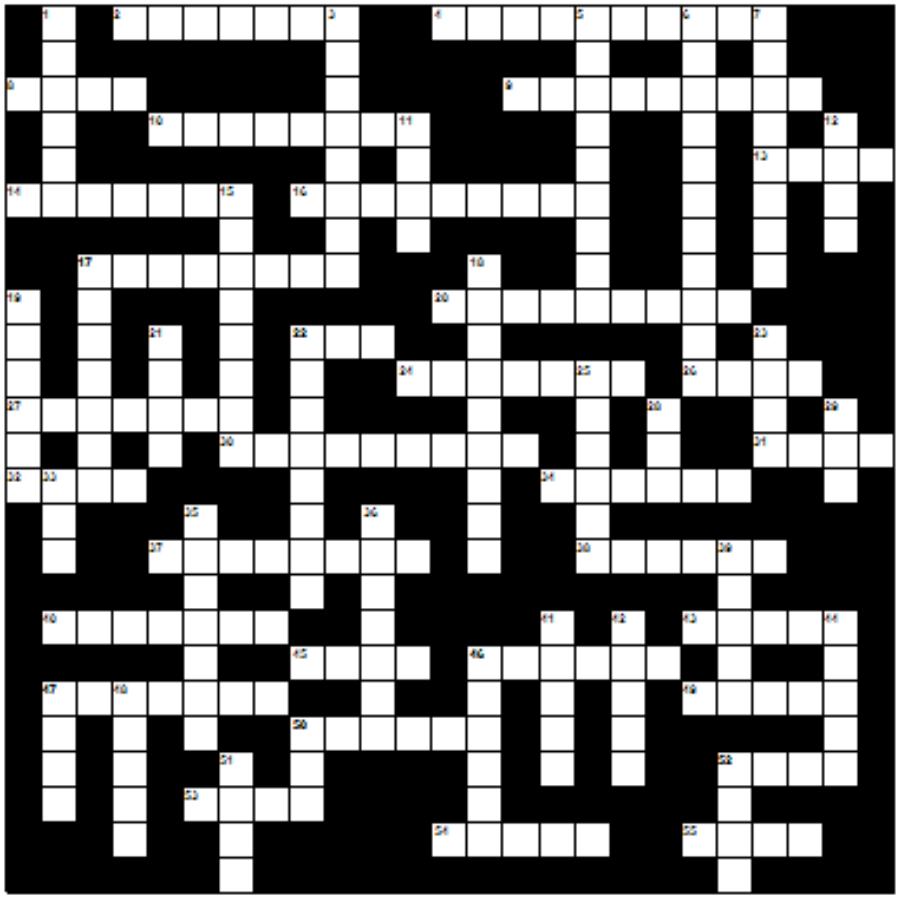
Name that Structure



T

Not all of the clues are PT related and not all are difficult. The solution is on the next page.

Jan05 (2)



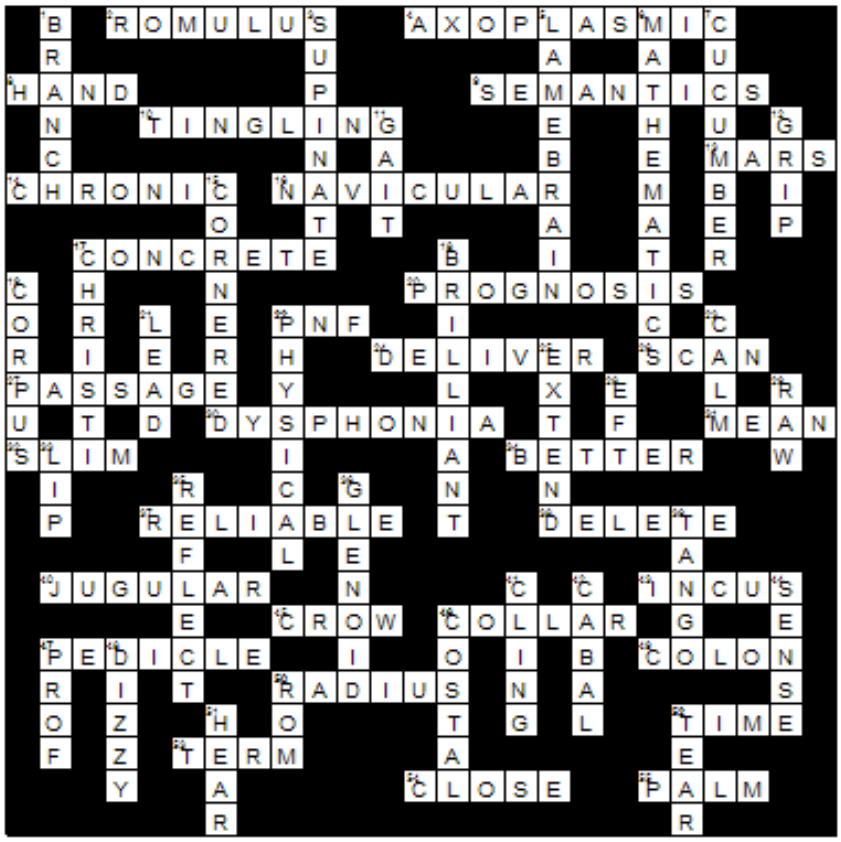
Across

2. A founder of Rome
4. A form of transportation
8. The body part in mano a mano
9. More than merely language
10. Parasthesia
13. Fourth planet out
14. Longterm
16. Bone in shipshape condition
17. Undoubted support
20. Prediction
22. Reeduction acronym
24. Hand over
26. A superficial look
27. You wish your travelling friends a safe one
30. Voice loss
31. Indifferently nasty
32. Not fat
34. Improved
37. Dependable
38. Take out
40. The bit that the ruthless go for
43. One of the smaller bones
45. A bird you do not want to eat
46. A supportive arrest
47. The vertebral foot
49. Grammar in the gut
50. Part of a circle in the arm
52. The fourth dimension
53. Specified period
54. Shut up
55. Tree and body part

Down

1. Ramus
3. Turn up
5. Crippled mind
6. Universal language
7. Found in the sea and in your salad
11. Spelled differently this lets you into the front yard
12. You can lose this if you are not careful
15. We all feel this from time to time
17. The other part of the Texan town
18. Bright
19. The body tart of a Texan town
21. Heavy and in front
22. Half of what we are
23. At rest
25. Stay longer or shorten
28. Amphibian
29. Backwards or forwards it is usually disgusting
33. One came out of Louisville
35. Something you should do periodically and not just in a mirror
36. Major stabilizer of the shoulder
39. Last done in Paris
41. Hang on
42. A secret group
44. Not as common as you might think
46. To do with the thorax just short of the sea
47. A shortened teacher
48. Wobbly
50. Often limited and also found in computers
51. Add an "H" to the organ and it is its sense
52. Done along perforated edge

Jan05 (2)



Across

2. A founder of Rome
4. A form of transportation
8. The body part in mano a mano
9. More than merely language
10. Parasthesia
13. Fourth planet out
14. Longterm
16. Bone in shipshape condition
17. Undoubted support
20. Prediction
22. Reeduction acronym
24. Hand over
26. A superficial look
27. You wish your travelling friends a safe one
30. Voice loss
31. Indifferently nasty
32. Not fat
34. Improved
37. Dependable
38. Take out
40. The bit that the ruthless go for
43. One of the smaller bones
45. A bird you do not want to eat
46. A supportive arrest
47. The vertebral foot
49. Grammar in the gut
50. Part of a circle in the arm
52. The fourth dimension
53. Specified period
54. Shut up
55. Tree and body part

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Don't curse the darkness, light a candle.

Editor Jim Meadows

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Video Tapes Digital Conversion Update

The video tapes series Manual Therapy by Jim Meadows has now been converted to DVD format and is ready for sale now. There are 50% discounts available for past buyers of the video tapes, for past students of my courses and 30% discounts for subscribers to this newsletter and to NAIOMT students (for a another two months subscribers and NAIOMT students will also receive a 50% discount). The full price of the complete set of DVDs is $700 US with the Canadian dollar at par for Canadian residents. The MVA video is available alone for $70. See page 9 of this issue for a pretty picture but for further information on the content of the video see my web site.