

The Anterior Thoracic Technique and SOT

The Anterior thoracic was one of the first described chiropractic adjustments. History records that three of DD Palmer's early students Oakley Smith, Solon Langworthy and Minora Paxon beat DD to the boundary line by writing the first chiropractic textbook "Modernised Chiropractic", in 1906, which recognized a 'flattening of the upper thoracic region'. DD Palmer and son BJ were quick to reply with "The Science of Chiropractic" (2) also published in 1906.

Both of these early texts contain descriptions of the anterior thoracic adjustment as do many of the classical chiropractic technique textbooks of the twentieth century such as those of Beatty (3), Janse Houser and Wells (4) and States (5).

Although the technique is most probably taught at all of today's chiropractic faculties and is a part of several technique protocols including those of De Jarnette, Thompson and Pettibon, it is noted that variations exist in the understanding of "anterior D's" *biomechanical nature, its analysis, relative importance and method of delivery. Lets look at each in turn. (*Newer graduates and current undergraduate students may come across the use of the term 'dorsal' in place of 'thoracic' in older texts. Of course, thoracic is the more correct term as 'dorsal spine' is slang when referring to human anatomy. It is noted, later in this article that the term 'anterior thoracic' is also a misnomer).

Biomechanical Considerations

We have borrowed the title of this sub section of the article from a very well-written paper entitled "The Anterior thoracic adjustment" by then-CMCC technique instructor, Dr Bruce Fligg, which appeared in the Journal of the Canadian Chiropractic Association, December 1986 (6). (This article is a 'must read' and is readily available on the journal's website in downloadable form. All Articles from 1985 to the current issue are available, which has been duly noted, by us, as a great idea for when the SOTO A/Asia website is up and running. SOTO Australasia Expression and its forerunner, the Bulletin, date back to 1974 and contain a wealth of technical tips and other SOT information).

Fligg states that: "The anterior thoracic, by the semantics of its name, has produced some misunderstanding in its clinical application. Historically, the name came from the following two factors (i) the vertebral subluxation felt anterior (spinous) and (ii) the adjustive thrust was applied anteriorly" (7).

On the biomechanical nature of the anterior thoracic Fligg further notes that: "The adjustment is most commonly used to correct a mid-thoracic extension subluxation and flexion fixation. This is determined through static and motion palpation. **A Pottengers saucer or a flattening of the thoracic kyphosis is often observed. This being the case, P to A compressive adjustments are contra-indicated, therefore the anterior adjustment is preferred**" (8).

Pettibon's understanding of the biomechanical relationships in the production of the 'anterior thoracic' differs to that offered by Fligg. He state that: "From birth until death, the thoracic spine with its attached thoracic rib cage as a unit is essentially fixed and rigid during all anterior and posterior bending movement of the spine. Examination of a thoracic vertebra individually and the thoracic spine as a whole clearly indicated that they are constructed to allow bending between vertebrae but to individually resist either posterior or anterior displacement. Posterior and anterior displacement is further made impossibly by the attachment of the thoracic cage." (9)

The Pettibon model then is that imbalanced forces in the cervical spine above and the lumbo- pelvic below produce a lateral-rotary compensation movement into the thoracic spine resulting in the dorsal saucering known as the anterior thoracic. This explanation is similar to De Jarnettes who stated that the thoracic vertebra cannot rotate in a true direction without a degree of elevation on one side and depression on the other (10).

Relative Importance

In writing this section of this article, we hope to better “position” the anterior thoracic to SOT practitioners (a brilliant concept we have taken on board since reading Dr Charles Blum’s article on the sacral cups) (11) and to compare and contrast its position and importance in other chiropractic technic protocols. Simply stated, anterior thoracic hasn’t been given the attention it deserves.

Starting with De Jarnette and SOT, our readers will note that in our current protocol as taught at SOTO Australasia seminars (12) the anterior thoracic is positioned way down the list in the Category II protocol as one of the last things you check in an healing Category II and is equally low on the list with a Category I patient and irrelevant to a Category III.

De Jarnette made the statement in 1981 (13) that: “The Anterior thoracic vertebra is the most common subluxation in chiropractic” and further states that: “The anterior thoracic subluxation is so predominant, yet few among the chiropractic profession recognize it or even give it a second thought. It is second nature for a chiropractor to want to move a vertebra from posterior to anterior that he shuts his thinking to other possibilities.

It is safe to assume that in an ordinary chiropractic practice, 80% of the total patient load will at some time critically need an anterior thoracic vertebral adjustment and if something else is substituted, symptoms and pain will increase. Thousands of chiropractors take annual office procedure and sales courses each year trying to learn how to procure new patients and keep their present patients as boosters. **The answer is simply “do not adjust an anterior thoracic vertebra by forcing it further anterior”. It is as simple as that, and the addition of thinking along this anterior subluxation is sufficient to enable most chiropractors to successfully handle a greater number of serious problem cases.”**

A similar stance to that of De Jarnette, is taken by Dr Clarence Prill (Dr Prill, a 1946 graduate of the Palmer School of Chiropractic has an interesting usage of the overarm psoas test as a form of analysis which we can present in a future article).

Prill suggests that: “One of the greatest mistakes that practically all chiropractors make is the continual driving of the thoracic vertebrae toward the anterior just to hear the facets snap. This is the most frequent cause of the failure to correct subluxations relative to aberrant function of internal organs and the return to normal function and health. Many thoracic vertebrae are already subluxated anteriorly exerting tension upon delicate nerve fibres supplying tissue cells, organs and glands creating aberrant function and a variety of symptoms. All too often these subluxations are exacerbated and increased by the failure of the chiropractor to properly analyze them and adjust them. Instead, the chiropractor stupidly pounds the thoracic vertebrae toward the anterior taking great satisfaction in the report made by snapping facets which he thinks indicates a good adjustment. The chiropractor that does this could not be of a greater disservice to his clients.” (14)

Now if you think this is a little more caustic than Bruce Fligg's previously stated "P to A compressive adjustments are contra-indicated, therefore the anterior adjustment is preferred" then read this 'drink drive-bloody idiot' admonishing statement also from Dr Prill.

"No vertebra should be forced anterior or posterior or in any other direction unless or until accurate spinal analysis indicates that such an adjustment is necessary and has the potential for benefit rather than harm. There are chiropractors who feel that it does not matter what is done or how. They think that if it does no good it will least do no harm. These people are seriously mistaken and have no understanding of the subluxation and do not appreciate the potential for good or harm in the practice of chiropractic. Just as an applied force can contribute to the correction of a subluxation, it can also contribute to the exacerbation of the subluxation. Such ignorance and stupidity in the practice of chiropractic is in excusable." (15)

Pettibon adds that the fact that forces directly applied on the thoracic spine from posterior to anterior do not meet resistance at the point of force and therefore have no shear force at the point of contact". Pettibon's conclusion is that "the gentle A to P acceleration of the thoracic spine and rib cage against a purposefully placed fulcrum is the mechanically sound way to realign the thoracic spine". (16)

In Thompson technique (17,18, 19) it is noted that thoracic technique appears way down the list after ilium, sacral and cervical syndrome findings. New York Chiropractic College technique instructor, Dr Dennis Homack (20) reminds us that Thompson specifies thoracic adjustment protocols only for anteriority! There is no p to a Thompson thoracic technique.

Analysis

The analysis of the anterior thoracic vertebra can be as simple as the question asked to the first year biology student. To the question: 'What is life?', the reply was 'you know it when you see it.'

Oakley Smith's 1906 description of a flattening of a thoracic spine or Pottenger's (21) 1953 description of a "dorsal saucering" suggest observation as in postural analysis is a good place to start.

In SOT notes, the analysis is to locate the most painful spinous process and palpate spinouses inferiorly to find the spinous that is not painful. Similarly, Homack (22) in writing on the Thompson technique suggests that there be "pain along the tips of spinous processes often occurring with a loss of kyphosis at that segment ("Pottenger Saucer") a phenomenon unique to anterior vertebral subluxations (and for those born before 1960, yes, we did just use the subjunctive in place of the indicative mood). Another way to arrive at the analytical conclusion of anterior thoracic is via the checking of the occipital fibres. Press anterior before superior and you will be able to determine that you need to adjust supine before going the spinal pump.

Adjustment and Equipment Variations:

As with each chiropractic move that has been developed, the general principle that applies is that there is no need for excessive force. To this end, several variations of equipment and procedure have been developed – the choice is yours.

De Jarnette Method

Dr De Jarnette's method of choice was the use of the anterior dorsal block. Available through SOTO Australasia, the anterior dorsal (thoracic) block has the advantage of comfort in placement, but then again, that could be said for each method. Also for the small-framed chiropractor, the DeJ method is much easier in delivery. The procedure as described in current SOTO A/Asia teachings (23) is: 'client seated, arching thoracic spine into a kyphosis with fingers interlocked behind cervicals. Anterior block is placed over the least painful spinous and the patient is reclined so as to lay supine. Patient pulls elbows together, doctor passes hands through patients arms and gently thrusts onto patients chest.'

In practice, if you have the patient interlock their hands behind their cervical spine, draw their elbows together and really flex their neck then you don't need to press onto the patients chest, rather, the adjustment is a leverage adjustment with patient using his own arms as the levers.

Manual Methods

An important aspect of the proposed bio-mechanics of the anteriors is that there is an extension component, be it actual or otherwise. As we wrote previously Fligg suggests extension fixations, Pettibon suggests a lateral inferior spinous which has a global cause. For the student of biomechanics we suggest attaining the articles by Zachman et al (24), Fracheboud et al (25) and Woggon (26). In any case a flexion prestress position is suggested with the anterior thoracic adjustment and with that goal in mind two methods are worthy of description. First, the method described by CMCC's Dr Alan Grice (27) involves the using of a De Jarnette Pelvic block placed lengthwise as a flexion support for the placing of the doctors adjusting hand.

The second approach was Pettibon's inclusion of flexion in the design of the adjusting table which slanted to 30 degrees similar to a Grostic leg check table. This allows for easier positioning of the thoracic spine yet for those without a Pettibon bench a simple solution could be to use a large padded foam wedge or simply to keep the patient in a flexed position. Another clinical tip that Dr Pettibon introduced us to so many years ago was the use of a piece of dowel held across the fingers which helps to form the needed fulcrum for the adjustment thus: (28) 'To purposefully direct a force into the thoracic spine, one must first erect functional fulcrums. This is best done by purposefully positioning one's hand so that a force can fulcrum from it, and cause the spine to torque away from the spine posterior-centrally' (28)

On the subject of doing the best anterior adjustment two factors are important. The first is to visualize what you are trying to achieve (this helps also if you are playing golf or basketball or in fact mostly any skill you would like to name including writing articles for "Expression") and the second factor is that breathing co-ordination is important. The compressive thrust is applied with the patient exhaling.

The Tepperwedge

As we have mentioned with De Jarnettes anterior block, it may be easier on the chiropractor if they are small-framed. Pettibon suggested a piece of dowel that not only forms the frame of a fulcrum but also protects ones knuckles. In the early 1980's another device emerged – the Tepperwedge, (29) which protects your hand and wrist. The raised "ribs" of the Tepperwedge do the work that would have been done by the hand fulcrum. The Tepperwedge is a great idea that continues today as Tepperwedge II (Barrington equipment and supply in Illinois are a good supplier and no we do not have a vested interest).

The Waller

A variation of the supine anterior thoracic adjustment is to do the same adjustment standing. The patient has their arms on opposite shoulders, you position your fulcrum hand, using a dowel pin or tepperwedge if you like, have the patient's neck in flexion and use the breathing cycle. One disadvantage of the "waller" is that you are actually supporting some of the patient's body weight and it can be quite difficult for the smaller framed doctor (or the large framed patient for that matter). The advantage of the waller is that some chiropractors feel the adjustment is better under gravity-bearing conditions. For those who don't like their hand being crushed against the wall of their office room, we suggest a hand towel encircling your hand overlying the dowel pin or tepperwedge and for those who regularly use the waller adjustment, Pettibon (30) or Harrison's supply companies, on their websites, are the places where you can check out their padded and covered waller plates.

Mechanically – assisted methods

There are two methods of delivery using a drop piece mechanism for the anterior thoracic. Thompson, as part of the Thompson protocol has an anterior thoracic adjustment involving a special device and more recently Pettibon (33) has developed an anterior thoracic drop that can be placed on the bench.

In terms of SOT practice, it is our experience that a Thompson table isn't the table of choice, in terms of the table board placement and block placement, yet, we are aware that some of our SOT seminar attendees may develop 'amalgam' or 'hybrid' techniques and we welcome your correspondence if you have done so.

The piece of equipment used with a Thompson table is called a 'dorsal blocker': Dr Pettibon's (34) recently developed device is called the DUD Thoracic Adjuster, DUD standing for dorsal upper dorsal.

Conclusion

We have presented several variations of the anterior thoracic adjustment and have discussed two adjusting concepts which we have found useful in practice: that of visualizing what you are trying to achieve in your adjustment as you are doing it and the usage of the patient's breathing cycle so as to deliver what BJ termed – the adjustment with "something extra".

In our article series so far, we have covered basic concepts, analysis and adjustment methods contained in the Category II and I protocols mostly. We have barely touched on the subject of Category III and there is much to be written on various CMRT and Cranial topics.

For the most part, we try to present something that you will not only find interesting, but of practical application. We stick to that which is factual and proven yet where and when our "opinions" may surface, we hope you, our SOT Expression reader will be able to appreciate the difference between fact and opinion. Responsibility for everything is entirely ours (except the "typos" for those, blame the editor! We always do!)

Until next issue, we remain

John S Kyneur – Haberfield NSW

Peter J Kyneur – Toronto NSW

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