Bodywork: The Relevance of Subclavius

by Caroline Barrow

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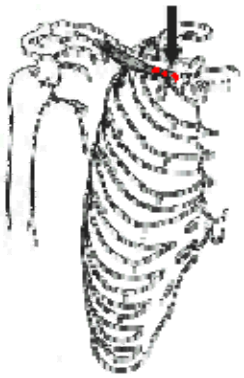
French Osteopath, Jean-Pierre Barral, who has developed many unique techniques to evaluate and treat the various structures of the body, comments that it is the small muscles, especially in the thorax, that are more often responsible for primary restrictions or areas of tightness leading to dysfunction. He states: "it is our experience that small muscles retain the memory of trauma much longer than the larger ones and therefore have a greater overall effect on the body… when large muscles are affected by trauma they show a relatively strong but brief reaction".

How many of your clients come with tight necks, rounded shoulders, heads slightly forward… probably a fair number. Does working the back, neck and shoulder muscles always do the trick? If not, consider looking to the front of the body. There are a few smaller muscles that can, if abnormally tight for an extended period, be part of what contributes to these postures. Pectoralis minor, sternocleidomastoid, subclavius and even omohyoid (if you are unfamiliar with this one go in search of a picture – its bizarre insertions arguably deserve a page in their own right).

For now we'll consider subclavius, a small, long, triangular muscle that, as you may expect from its name sits under the clavicle and in front of the first rib, arising mainly from the cartilage of the first rib (some fibres from the bone as well). Fibres run upwards and backwards, parallel to the clavicle. The main flesh of the muscle inserts onto the underside of the clavicle, in a small groove in the middle third of this bone.



Subclavius contributes to the stablization of the clavicle during movements of the shoulder by lowering the clavicle (and thus the shoulder joint) and pulling it forward – exactly what so many of us are doing when we sit hunched at our computers or over a desk. Tom Myers comments that it comes into its own when we need to prevent dislocation if the shoulder joint is subject to the strain, for example, of hanging by one arm from a tree; he suggested an alternative name of 'preventis lateralis clavicularis'.

To feel the muscle, if you have not done so before, place your thumbs/fingers underneath the mid point of the clavicle and hook them right under until you feel a small fleshy bulk. To check if you can feel this muscle and not the pectoralis major which it lies deep into, bring your shoulders slightly forward and down and feel for the bulk of the muscle; if you move your thumb or fingers around gently you should be able to move over the bump of the contracted muscle.

So when might we need to think about including it in our treatments – apart from accidents occurring whilst hanging from trees?

There are very specific osteopathic type techniques that will evaluate and treat this muscle, but even using general massage or fascial release approaches can have a positive effect. Gently explore the area after trauma to the shoulder or thorax – these include blows to the arm at the side, falls when an arm or hand has been put out to protect from the fall and 'jarred' the shoulder and upper chest area, even impact from the back scapular area which may cause subclavius to tighten. I have had clients who have had impact injuries to the side of the shoulder, and having worked everything else, were still experiencing pain until the subclavius was released.

Occasionally deep-seated respiratory problems can be supported by releasing this muscle and the fascia around, since it will affect the ability of the first rib to move with the freedom it requires. Additionally, since it is innervated by nerve fibres that exit the spinal cord at C5 and C6 and intriguingly some of the other nerve fibres from these roots can link to fibres in the phrenic nerve (which innervates the diaphragm and an upper section of the peritoneum), occasionally irritations of these areas may reflect to the nerves of subclavius and create abnormal

tone.

Subclavius is also surrounded by the clavipectoral fascia, a connective tissue sheet circling the clavicle and subclavius and linking to both the subclavian vein and pectoralis minor below. This fascia is typically described as separating pectoralis major and minor, but can be a key place for restrictions to be held that may affect the upper chest and shoulder as a whole, usually rounding the shoulders and compressing the rib cage.

More rarely of clinically relevance is the fact that this muscle sits directly above the subclavian vein (the brachial plexus and subclavian artery are also in the vicinity but slightly more lateral). Thus, abnormal tone can contribute to problems with this structure, such as thoracic outlet syndrome: compression of the neurovascular structures heading to the arm to innervate and give blood, can give pain, tingling, numbness, weakness or oedema. This is typically from a compression of the brachial plexus (95% cases) around the anterior and middle scalene muscles but may also affect the vein around subclavius.

If you are going to work this area remember to go slowly and make sure the tissues are letting you in – it is better for the receiver's body to have a little softening of the muscle and fascia around this area than too heavy-handed an approach that creates more tightening.

About Caroline Barrow

Caroline Barrow BSc is a Shiatsu and Cranio-sacral practitioner. She is also the founder of the College of Body Science which specialises in running a variety of courses for complementary health practitioners to study anatomy (for real!), physiology, pathology and aspects of biomedical science. The vision is for high quality, on-going teaching, support and exchange to be available and suitable for practitioners at different stages of understanding, enabling a truly holistic approach to health. She can be contacted on Tel: 0845 108 1088; carob@collegeofbodyscience.com www.collegeofbodyscience.com