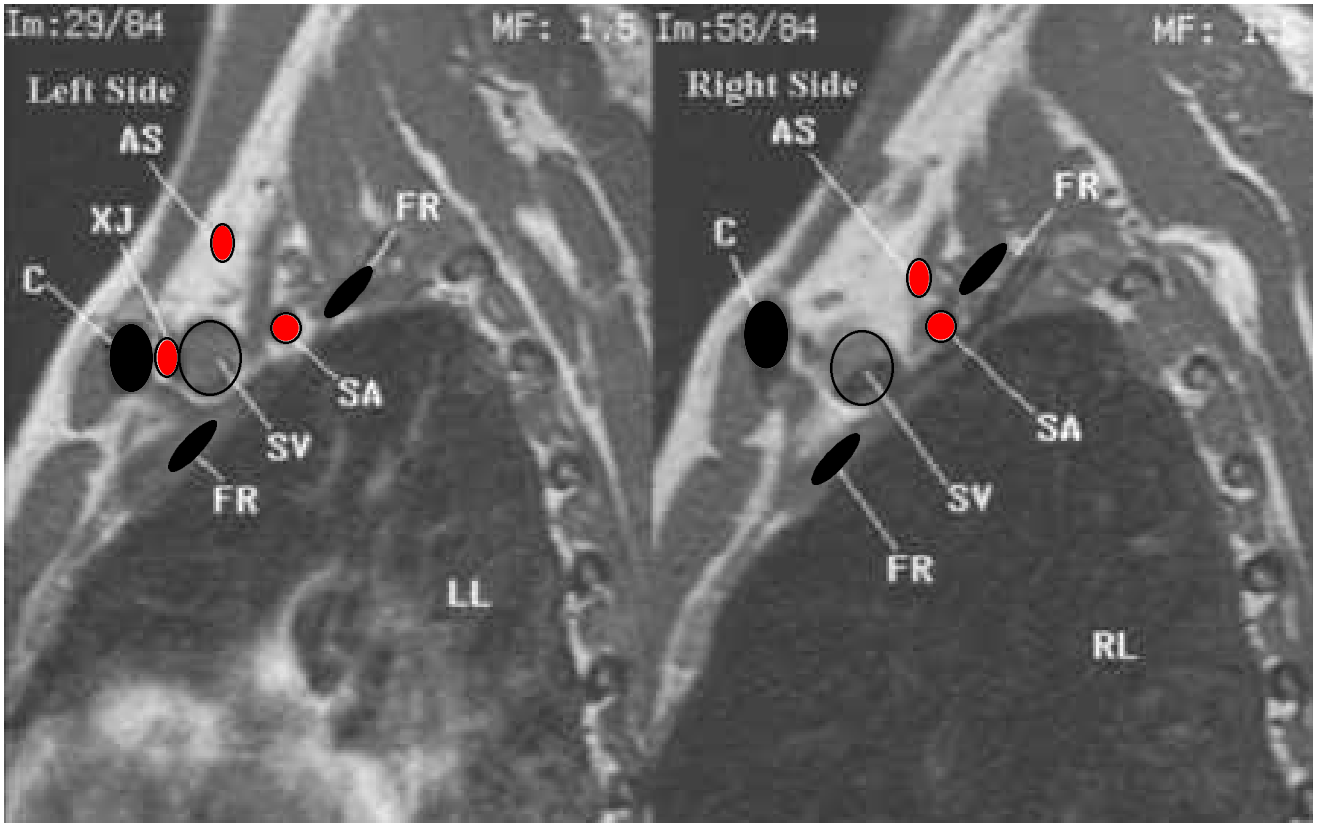


A few labels have been placed on the image to assist with identification of landmark anatomy.

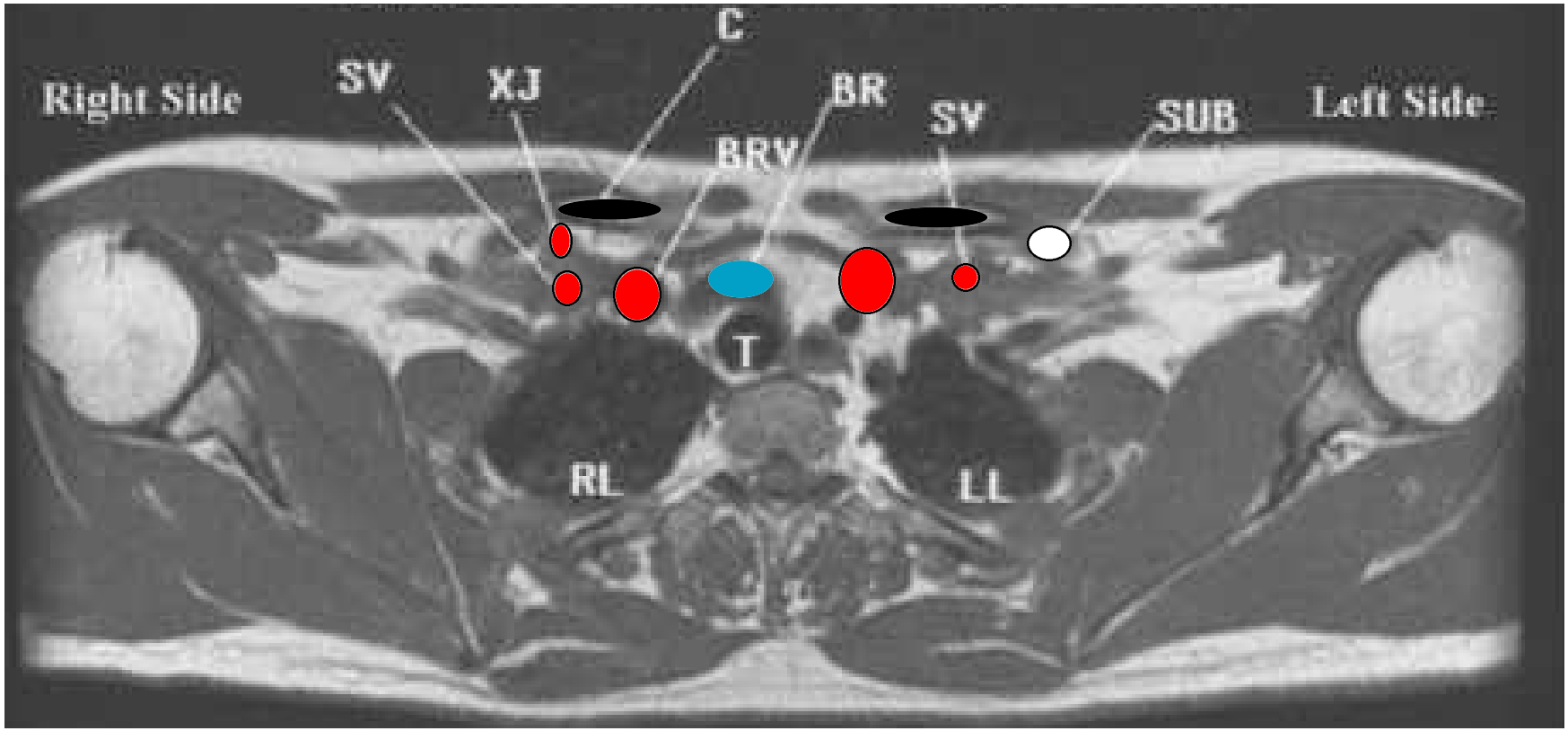
The clavicles (C), external jugular vein (XJ), right lung (RL), left lung (LL), first ribs (FR), subclavian veins (SV), subclavian arteries (SA), and anterior scalene muscles (AS) are labeled for reference.

3D MRI, Sagittal Sequence

The sagittal sequence cross-references the coronal and transverse sequences to display costoclavicular compression of the external jugular vein (XJ) against the bicuspid valve within the subclavian vein (SV) on the first rib (FR), costoclavicular compression of the axillosubclavian vein against the artery, interscalene triangle compression, and scarring (fibrosis) when present. The left and right images were selected to display the close proximity of the clavicle (C) to the external jugular (XJ) and subclavian veins (SV), particularly on the left. **When the chest is collapsed and the arms are extended or elevated above the head, the posterior inferior rotation of the clavicles with the sub - clavius muscles compress the venous drainage of the upper extremities reducing blood flow to the arms and front of the face.**

In the above images, the gray color within the left subclavian vein (SV) reflects decreased venous blood flow as compared to the right subclavian vein where blood flow is normal. Somachairs ™ allow for optimal blood flow to the arms and head in addition to providing both excellent lower back support and upper back, neck and shoulder alignment and muscle tension reduction which provides for the best RSI prevention.

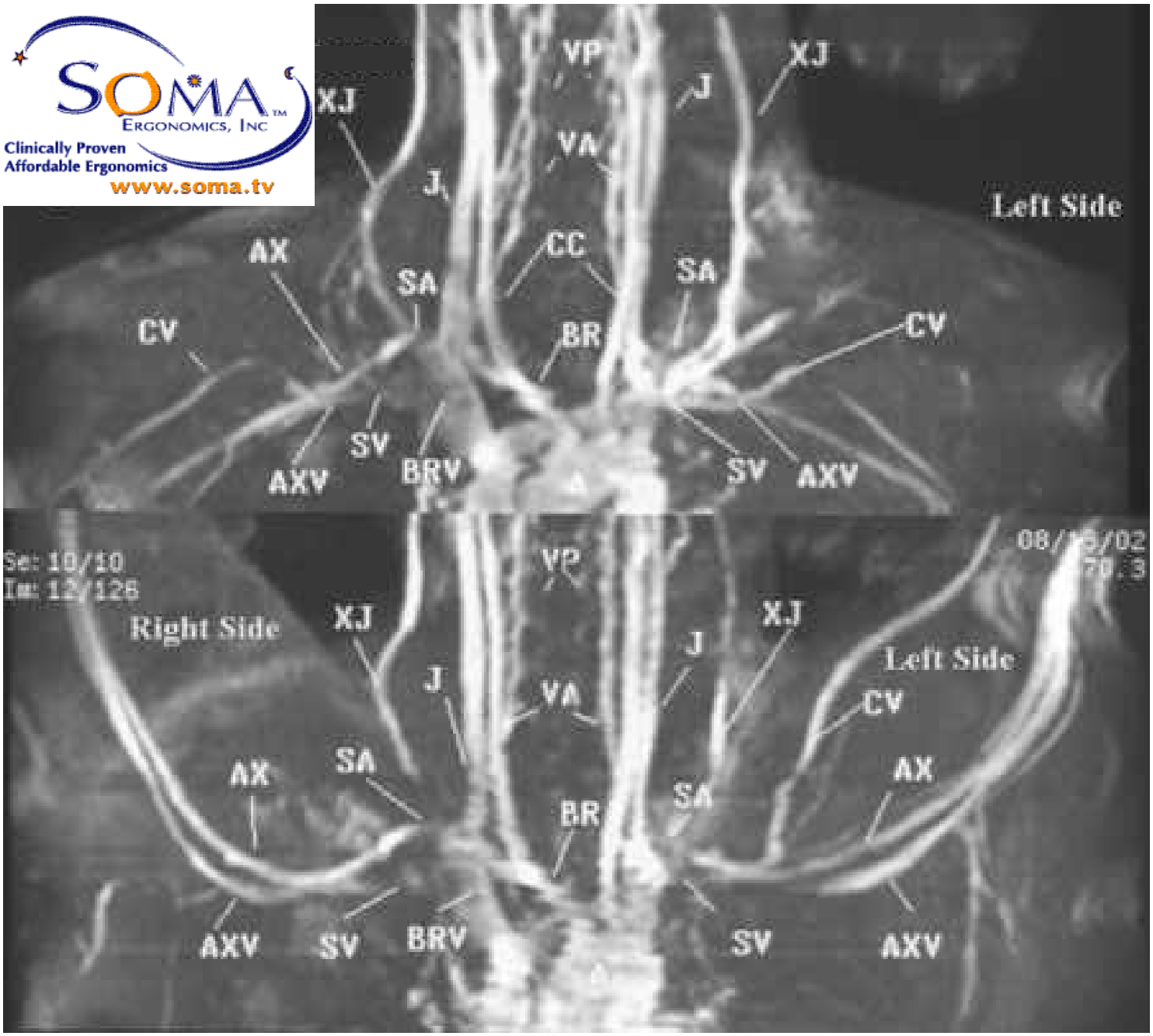
SOMA™ Ergonomics, Inc
Clinically Proven Affordable Ergonomics
www.soma.tv



3D MRI Transverse Section

The transverse sequence displays this patient's narrow fascial planes, costoclavicular compression of the axillosubclavian veins lateral to the subclavian veins (SV) on the first ribs, acute backward displaced subclavian arteries with binding nerve roots, the first division of the right subclavian artery effacing the bicuspid valve within the internal jugular vein as it acutely angles posterior to the right anterior scalene muscle, and the anterior rotated clavicle compressing the bicuspid valve within the left internal jugular vein. This image clearly displays the close proximity of the clavicles (C, only right one labeled) with subclavius muscles (SUB, only left one labeled) to the axillosubclavian veins (lateral to the subclavian veins, SV), compressing the external jugular veins (XJ) against the bulbous expanded subclavian veins (SV), on the first ribs, against the anterior scalene muscles. Note: The bulbous expansion of the subclavian veins is clearly visible in the image (large dark tubule structures identified by the labels SV). To fully understand this image, it is necessary to cross-reference with the coronal and sagittal images.

A few labels have been placed on the image to assist with identification of landmark anatomy. The clavicle (C), subclavius muscle (SUB), subclavian veins (SV), brachiocephalic artery (BR), brachiocephalic vein (BRV), trachea (T), right lung (RL), and left lung (LL) are labeled for reference. The first division of the right subclavian artery is not visible in this image, but it lies between the brachiocephalic vein (BRV) and the trachea (T) in an adjacent image in this sequence.

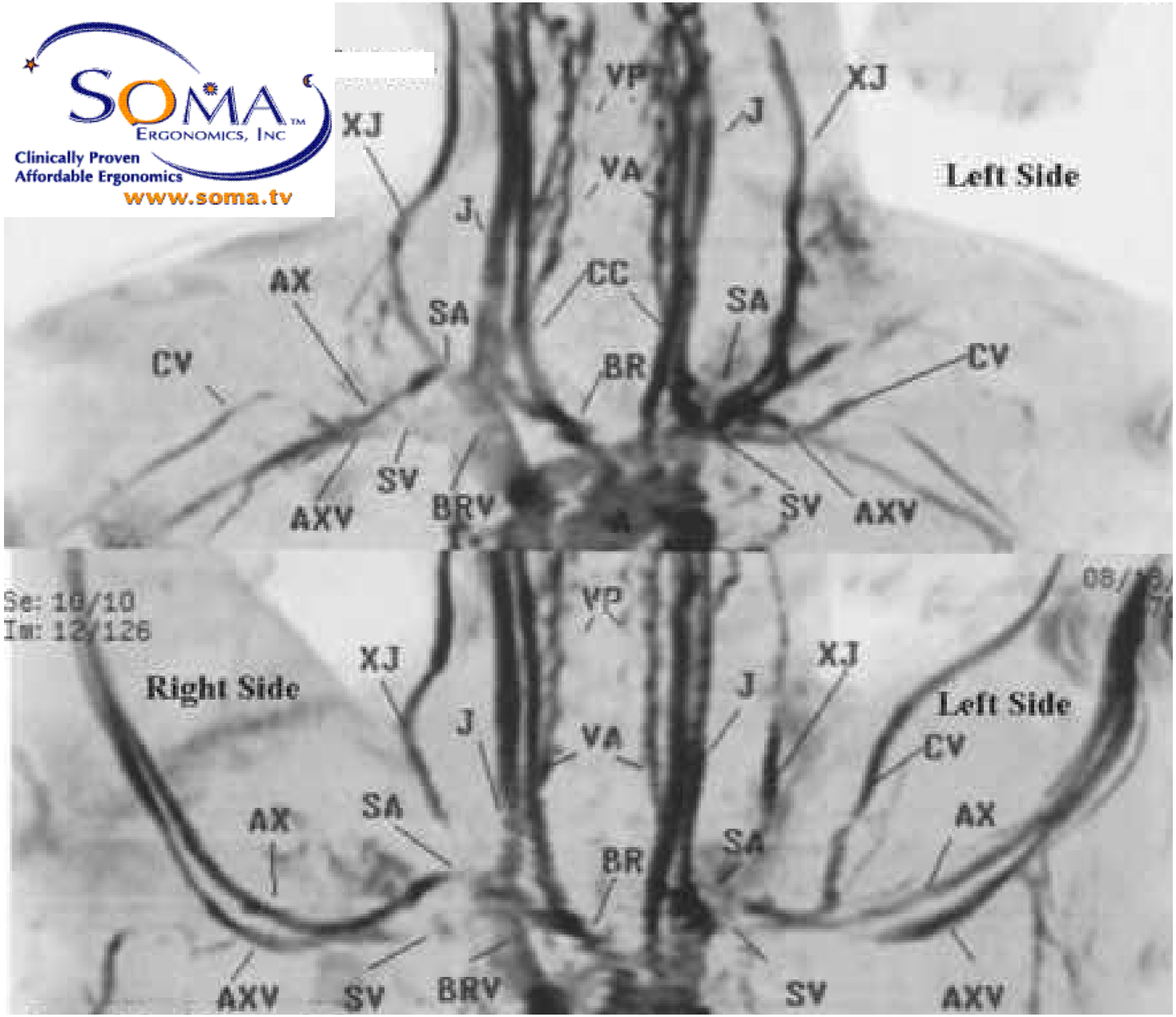


2D TOF MRA Coronal 3D Image (Neutral and AER positions)

The 2D Time-Of-Flight MRA displays in high resolution the arteries and veins which supply the brachial plexus. The amount of blood flow is proportional to signal intensity (which correlates to proton density). Gray, hazy areas indicate reduced blood flow because veins or arteries are compressed.

In this view, images of the patient with arms at side and overhead are displayed for comparison.

Vascular compression which is evident in the neutral position is more pronounced in the AER position.



2D TOF MRA
Coronal 3D Image
(Neutral and
AER positions)

The 2D Time-Of-Flight MRA displays in high resolution the arteries and veins which supply the brachial plexus. The amount of blood flow is proportional to signal intensity (which correlates to proton density). Gray, hazy areas indicate reduced blood flow because veins or arteries are compressed.

In this view, images of the patient with arms at side and overhead are displayed for comparison.

Vascular compression which is evident in the neutral position is more pronounced in the AER position.