Bilateral Thoracic Outlet Syndrome Misdiagnosed as a Connective Tissue Disorder

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Fig. 1: Left Subclavian Angiogram showing a normal appearing subclavian artery.

Fig. 2: Left Subclavian Angiogram of the same patient after inspiration and neck rotation to right side showing abrupt cut off of the artery (dynamic compression) with no distal flow.
Case and Discussion

A 20 year old unmarried female presented with chief complaints of blackish discolouration of the medial three fingers of right arm of one year duration and history of claudication of right fingers and forearm on writing. She gave history of Raynaud’s phenomena also and was diagnosed outside as a case of connective tissue disorder on the basis of these symptoms and weakly positive anti nuclear antibody (ANA) and was put on 150 mg aspirin but without much benefit. She had no other systemic illness in the past.

Examination finding was non contributory (including pulses and blood pressure) of all four limbs except slight gangrenous changes over the medial three fingers of right hand.

Blood investigation done at our hospital including special investigations like ANA, ds DNA, RA factor and thrombophilia profile were noncontributory. Arterial as well as venous doppler ultrasound of all four limbs were normal. Patient was subjected to catheterisation. Fluoroscopy showed accessory ribs on both sides of neck; well developed on right side and rudimentary on left side. Angiogram with special manoeuvres (inspiration and rotation of neck to corresponding side) which is equivalent to [Adson’s test used for clinically detecting thoracic inlet syndrome].

The patient was referred to surgeon for excision of accessory ribs which is the definitive form of therapy for this entity.

Surgical therapy might be associated with some complications for which one has to be cautious. Vascular and neurological complications are the commoner complication especially by supraclavicular approach.\textsuperscript{1,2}

Cervical rib occurs in 1-2% of population and commonly is bilateral. Symptoms are commonly due to compression of nearby neurovascular structures which include lower part of brachial plexus and subclavian vessels. X-rays can missed the diagnosis if structure causing the thoracic inlet syndrome is non calcified e.g fibrous band or accessory scalene muscle. Arteriography is believed to be the gold standard for diagnosing such arterial abnormalities as it gives real time images. Our patient had vascular symptom (gangrenous changes) probably due to microembolisation of thrombus\textsuperscript{3} (was not seen in the angiogram) which forms due to repeated arterial trauma as it is compressed dynamically.

References