

TAKAYASU ARTERITIS WITH PERIPHERAL CIRCULATORY FAILURE

A Case Report

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Pulseless disease has come in for lot of attention in the last decade. This disease was first reported by Takayasu in 1908. A spate of papers have appeared from China, Japan, South America, and many other American countries. The headings under which this disease has been described have been numerous and varied. Takayasu Syndrome usually signifies occlusion or narrowing of the large brachial and cephalic vessels arising from the aortic arch. This disease has got a marked predilection for young women. The diagnosis is often arrived at by a process of exclusion from other causes of arteritis. As the histopathologic features of arteritis are often limited to the roots of the large vessels, the diagnosis can only be confirmed at autopsy. Japanese workers have reported a high incidence of tuberculosis with aortic pulseless disease and Takayasu arteritis has also been compared to lupus erythematosus. In a large percentage of cases this disorder is accompanied by ocular and visual disturbances. Though aortography is the only definite method of diagnosing this condition yet the etiology of the

disease may remain obscure.

Case Report

Patient R., aged 35 years, was admitted as an emergency on 13-8-62, with history of severe vaginal bleeding after 3 months' amenorrhoea.

Past history and family history: Nil of importance.

Menstrual history: Menarche—14 years, periods = 4/30 day regular normal flow, each period 3 months back.

O.H.—5 F.T.N.D. all alive. L.D. 4½ years.

Condition on examination—General condition was poor. She looked pale, restless and was perspiring.

Pulse—Not perceptible. **B.P.—**Not recorded.

Heart—tachycardia. **Lungs—**clear. **P.A.—**N.A.D. **Vaginal Examination—**Vagina full of clots ballooning of the vagina was present; cervix was downwards and backwards internal os open and products of conception were felt through the os.

Bleeding ++. **Diagnosis—**inevitable abortion.

Treatment: She was given the usual treatment of haemorrhagic shock i.e. inj. morphia ¼ gr. oxygen inhalation and blood transfusion; evacuation was done without anaesthesia.

As pulse and blood pressure were not recordable noradrenaline (4.12 mgm.) intravenous, prednisolone 25 mgm. 6 hourly and 7 bottles of blood transfusion were given. In spite of the above treatment blood pressure could not be recorded and pulse was

not perceptible. Next day, i.e. 14-8-62, her general condition was slightly better. Pulse and blood pressure were not recordable. Two more bottles of blood transfusion were given. Third day, patient's general condition was poor. Respiration rate was 52/min. Lungs—full of rales and she developed pulmonary oedema, for which she was digitalised, and diuretics were given. Patient gradually improved in the next 48 hours. She was taking fluids by mouth. Pulse was just perceptible on the right side but not felt on the left side. Blood pressure, few beats at 90 mm. Hg. in the right arm and not recordable on the left side.

Blood pressure in the legs was 104/70 mm. Hg. in the left leg and 90/70 mm. Hg. in the right leg.

More detailed history was taken. She said that about 5 years back she started feeling giddy while walking and used to fall down and even hurt herself a few times. Later she used to sit down when she felt giddy. She also noticed blurring of vision and watering of eyes when she was reading or doing some work. Two and a half years back she noticed pain in the arms which became rather severe and she was then admitted in the Irwin hospital with some relief. Patient also consulted an eye specialist but without improvement. For the last 4 years these symptoms have improved except that there is more pain in the right arm.

Past History: No history of tuberculosis and no family history of this disease. She gave no history of allergy, or rheumatic fever; no history of coronary heart disease, diabetes or hypertension.

On Examination: Patient had feeble radial and brachial artery on the right side. Radial and brachial artery pulsations were not felt on the left side. Carotid and temporal arteries were felt. Femoral, popliteal, posterior tibial and dorsalis pedis arteries were felt on both sides. Blood pressure could not be recorded in the left arm and occasionally few beats were heard at 90-100 mm. Hg. on the right side; blood pressure in lower extremity on the left side was 160/100 mm. Hg., and right leg 140/90 mm. Hg. There was a thrill in the right supraclavicular region which increased on exercise.

The following investigations were done: Hg.—10 gm.%, W.B.C.—6800/cm., Poly—76%, Lymph—p2%, Eosin—2%.

Urine—Sugar and Albumin—nil.

Micros.—few epithelial cells.

Blood urea—32 mm.%. Blood for S.T.S.—negative.

Fasting blood sugar—74 mm.%.
Blood smear for L.E. cells—Negative.

17 Ketosteroids—8.8 mgm. Vol. 1100 cc.

E.S.R.—10 mm./hr. Plasma proteins—7.8 gms.%.
Blood electrolytes—normal. X-Ray chest—N.A.D.

E.C.G.—N.A.D. Aortogram was done on 22-9-62.

Report on the Aortogram shows left subclavian block.
B.P. was taken daily in both upper and lower extremities.

B.P. left arm was not recordable. Right arm few beats between 60-70 mm. Hg. Left leg—160/110 to 150/100 mm. Hg. Right leg—150/90 to 140/80 mm. Hg.
Oscillometric studies were done.

Upper extremities:

	Below elbow	Above elbow
Right	2.	1.5
Left	Not recorded.	Not recorded.

Lower extremities:

Right	6.5	6
Left	6	5.5

Patient was discharged on 26-9-62. She reported on 24th January 1963 with history of 3½ months' amenorrhoea.

O.E.: General condition was good pulse and blood pressure could not be recorded in the upper extremities.

B.P. Lower extremity:

Right side—140/90 mm. Hg.

Left side—160/100 mm. Hg.

There was no supraclavicular thrill felt.

Heart)
) N.A.D.
Lungs)

P.A. uterus size was of 14 weeks' pregnancy. As the patient was not keen for the baby, abdominal hysterotomy and sterilisation were done. Her post-operative period was uneventful.

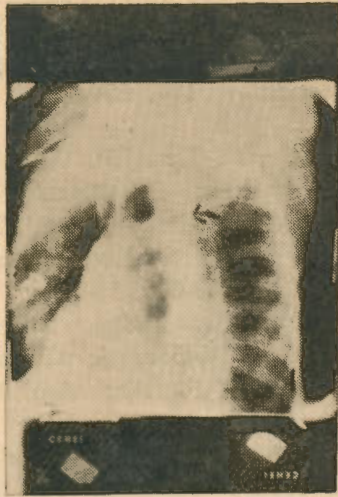


Fig. 1
P.A. view arrow indicates the block in the subclavian artery.



Fig. 2
Lateral view arrow shows the block in the subclavian artery.

Discussion

As this patient was admitted collapsed with severe haemorrhage it was very difficult to diagnose the true underlying condition. Going over

most of the literature we have not come across a single case that presented with peripheral circulatory failure. It was only after transfusing large quantities of blood, glucose and dextran that we found we were unable to make any impression on the patient's blood pressure. The super-vention of pulmonary oedema was obviously due to the excess of intravenous fluid therapy. Marked improvement in the patient's general condition, blood pressure in the lower limbs and absence of blood pressure in the upper extremities gave a clue to the underlying disease. Aortogram further confirmed the diagnosis. The absence of supraclavicular thrill, complete absence of pulse and blood pressure in the left upper extremity are evidence of complete blockage and further deterioration of the disease in the last 5 months. Even though there is no increase in the clinical symptoms, this is a progressive malady which runs an extremely variable course. Thus when the patient was found to be pregnant again and was not keen for the baby, it was decided to terminate the pregnancy. It was felt that if the patient developed pre-eclamptic toxæmia or any other serious complication like accidental haemorrhage or even post-partum haemorrhage, she would present a serious problem. Hence termination of pregnancy and sterilisation were felt to be justified.

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