



A CASE STUDY

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Excision of Descending Thoracic Aortic Aneurysm and Graft.

A 40-year-old farmer was admitted to the male surgical ward of C.M.C. Hospital, Ludhiana, on a complaint of gradual but severe onset of pain in the back since 1964.

On examination a large mass was visible and palpable at the left lower thoracic and upper lumbar region of the back. It was not tender and did not move with respiration. No thrill was palpable.

History

No history of cough or chest pain or syphilis or diabetes. X-ray of the chest showed the heart being pushed to right side due to large mass.

Khan test—negative. Aorta gram (An incision was done in the left brachial artery, a cardiac catheter passed through brachial artery to the descending aorta). The dye (urografin 70%, 50 ccs injected through catheter, and the descending aorta outlined a fusiform and saccular aneurysm that extended from 8th to 12th thoracic vertebrae.

Treatment

Advised Surgery i.e. excision of aneurysm and replacement with graft. The patient and relatives were explained the extent and risk of the surgery and a written consent for surgery was obtained from the relatives.

Investigations

Blood : Haemoglobin 14.8 gm ;
Blood urea : 20 mg., Blood group "O" ; Rhesus factor Positive and Blood Cross matched, Urine : Normal.

On the evening of the operation local preparation of chest, back, abdomen were done (shaved from neck downwards to pubis) and scrubbed with soap and water. Anaesthetist examined the patient and ordered Butabarbitone 200 mg. at H. S. for a good night

sleep and nothing by mouth thereafter.

On the following morning a bed bath was given and toilet attended. Fresh clothes put on. Patient was checked for artificial dentures and loose teeth etc.

Pre-medication was given at 7 a.m. Injection pethidine 100 mg and injection Largactil 50 mg. intramuscularly were given. Patient was sent to operation theatre at 8 a.m.

In the operation theatre a self-retaining catheter was put in the bladder for continuous drainage.

General anaesthesia started. Endotracheal tube was put in which was connected with the respirator. Continuous naso-pharyngeal and rectal leads attached for temperature recording by thermocouple (An electric instrument, which would show the temperature instantly on demand). Cardiac Monitor was attached. It has got defibrillator and also artificial pacemaker.

Hypothermia started at 8.20 a.m. by surface cooling (ice put on the wet sheet spaced over the body) and the naso-pharyngeal temperature was brought down 29°C at 9.30 a.m. The cooling was stopped (The hypothermia helped to reduce the function of tissues). Patient was placed in semi-right lateral position. Area prepared with iodine and spirit.

Incision

Chest and abdomen opened by left thoraco abdominal incision. A large aneurysm was visible attached with the descending aorta. Dissection done from both sides of the aneurysm. Heparine 50 mg. injected into the aneurysm to prevent thrombus and clot formation in the lower extremities. Both ends of the aneurysm were clamped with Crawford aortic clamp. A slight hypertension noticed.

The aneurysm was mobilized and measured and a tape excised. A "Dacron" graft about 15 cm. long and 32 mm. diameter, was sutured with polythelene suture. During the aortic occlusion the temperature was 30°C. The proximal clamp was released, there was no leakage and distal clamp too was released. Total occlusion time was 45 minutes. Pulse could be felt in both lower extremities. All small bleeding areas were cauterised. The chest and abdomen closed in layers.

Thoracotomy tube was put in (via) stab wound. A controlled water seal chest drain was connected. Manitol 20% 100 mls. intravenous given. Urine flow was satisfactory. Blood loss during operation was 4,500 ccs. and that was replaced.

Patient was transferred to Recovery Room in a fairly good condition and kept flat in warm bed. Oxygen administered by nasal catheter and patient was connected on continuous Cardiac Monitor. Electric blankets were used to warm up the patient and removed when rectal temperature showed 36°C.

Post-Operative Care

Antibiotic chloramphenicol 250 mg. intravenously 6 hourly and intravenously fluids continued. Blood pressure continued to be low 80/50 mm. Hg. examination of the blood and urine showed normal. Injection pethidine 50 mg. given for pain and oral hygiene was performed frequently.

Complete bed rest was encouraged on the first day of operation.

On the 2nd day, patient's general condition had improved. Urethral catheter was removed. Intravenous fluids and oral fluids continued. His toilet was attended in bed, and all nursing precautions were taken to keep his skin clean until he could do it himself. X-ray showed full expansion of lungs. Heart shadows were normal.

On the 3rd day nothing particular was noted and on the 4th day patient continued to improve without any complaints. Chest drains were removed. Antibiotics discontinued. Soft diet was allowed. Next day regular diet was given and the patient was sitting on the chair near the bed.

On the 8th day skin sutures were removed and on the 12th day he attended occupational therapy department. Urine and blood were found normal. X-ray of spine showed weakness between 8th to 12th dorsal vertebrae and erosion of vertebral bodies due to previous mass (aneurysm). So patient was given "High Taylor Back Brace" to be worn, and he was not allowed to sit and walk without it.

He was discharged after one month and was advised to return for check up after 3 months.