

Results of Treatment in 15 Cases

Age and Sex	Stabilization Dose of Morphine (mg.)	Amount to which Dose had to be Increased before Terminal Stage Morphine (mg.)	Dose of Amiphenazole (mg.)		Duration
			a.m.	p.m.	
53 M	15		20	20	6 months
45 M	30	60	20	20	6 "
66 M	45	80	60	20	3 weeks
67 M	90	100	20	20	
55 M	15	32	20	20	
39 M	12	22	20	20	
51 F	15		20	20	3 months
73 F	12		20	20	5 "
50 F	15	90	20	20	3 "
58 F	15	32	20	20	2 1/2 "
79 F	15	65	20	20	1 month
56 F	32	66	40	20	3 months
37 F	15	22	40	20	6 "
62 F	32	32	30	20	
54 F	15	65	60	20	

It is concluded that the advantages to be gained from the use of amiphenazole with large doses of morphine in the treatment of intractable pain are: the ability to control the pain from the beginning, the induction of a bright mental outlook in the patient, and the possibility of using large doses of morphine for at least six months without the development of any marked tolerance.

Summary

The treatment of 127 cases of intractable pain in terminal carcinoma is described. Complete abolition of pain was obtained for 24 hours by the use of large doses of morphine (1-3 gr., 65-195 mg.) and a new drug, amiphenazole. The mixture was given three or four times a day for periods of up to eight months. The main advantages of the combination are as follows. Administration of large amounts of morphine without respiratory depression, narcosis, or depression of the cough reflex; amiphenazole apparently prevents the onset of any marked tolerance to morphine, and possesses a central nervous stimulant action of the caffeine type; and treated patients have a bright mental outlook under otherwise hopeless conditions.

We thank Dr. T. B. Patrick, medical superintendent of the Austin Hospital, and Dr. W. Holman, Director of the Peter MacCallum Cancer Clinic, for facilities to carry out this clinical trial and for the interest they have shown. We also thank those resident medical officers who have contributed to this project, and Dr. Kaye Scott, whose interest and help have been of the greatest encouragement to us. Generous gifts of drugs were made by Drug Houses of Australia and Nicholas Pty. Ltd. Part of the expenses were defrayed by a grant from the National Health and Medical Research Council of Australia.

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"I am of the decided opinion that unless a complete re-organization of the public analyst service of this country is undertaken in the near future, it will eventually die of anaemia. Its laboratory facilities, its staffing, and the manner in which the all-important sampling is carried out are all out of date and quite unable to cope with modern conditions. The country is split up into far too many food and drug authorities, resulting in the duplication of effort, in the narrowing of the field of work, and in the expenditure of money which could be better employed in more useful ways than the traditional ones."—*City of Birmingham: Annual Report of the City Analyst for the Year 1954*, December, 1955. Of 5,847 samples of food and drugs examined by the Birmingham city analyst's department in 1955, 481 (7.6%) are stated to have been adulterated, below standard, of inferior quality, or incorrectly labelled.

ATRESIA OF THE ABDOMINAL AORTA

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Occlusion of the abdominal aorta by thrombus, a relatively common condition, has been reviewed in detail by Burt *et al.* (1952). Though the following case may fall into this category, the finding at operation of atresia of the aorta and of the common iliac vessels with healthy walls makes it worth recording because of the possibility that it is of congenital origin.

Case History

A butcher aged 47 complained of an ulcer on the second right toe that failed to heal in spite of treatment. He also complained of pain in both calves during effort. Both conditions had been present for some months.

On further questioning, he admitted that for five years he had had some trouble in his calves during exercise. He also admitted having rest pain in the feet at night which was relieved by getting up. The feet were always cold and white. The ulcer first appeared ten months before admission, was very painful, and resisted treatment with anti-coagulants, "hydergine," tolazoline hydrochloride, and antibiotics. His "claudication distance" shortly before admission had come down to 10 yards. The past history and family history contained little that was relevant to the present complaints. He was rejected for military service in 1941, but was given no definite reason for this. His father died of dropsy at the age of 71, his mother of gangrene at 80.

The patient was well developed and of good colour. The blood pressure in each arm was 140/109 mm. Hg. No readings were possible in the legs. The radial pulse was 110 regular, and well sustained. There was no cyanosis. The apex beat was in the fifth interspace in the M.C.L. Heart sounds were closed. All arm pulses were present. However, no aortic pulse was palpable in the abdomen and no pulses were present in the region of the external iliac, femoral popliteal, dorsalis pedis, or posterior tibial arteries in either limb. The left foot was pale and rather cold. The right was warmer but showed cyanosis of the toes. A hard black crust was present on the pulp of the second right toe. Venous filling was poor. There was no oedema or telangiectasis. Oscillometry gave no recordable readings in either thigh or calf at levels of from 180 to 80 mm. Hg. After heating the trunk and arms with an electric blanket there was a limited rise of temperature in each foot. It was found impossible to needle the abdominal aorta by the percutaneous lumbar route for reasons which appear obvious in the operative note.

As a result of these investigations a provisional diagnosis of aortic thrombosis was made. In view of the ischaemia of the feet, of the relative youth of the patient, and of the positive skin temperature reaction, a decision to carry out bilateral lumbar sympathectomy was made.

The lumbar chain was approached by the anterior extra-peritoneal route through a horizontal incision at the level of the umbilicus. During the course of the operation on the left side the opportunity was taken of exploring the aorta. The following condition was found. At the level of the renal vessels the aorta terminated in a bulbous pulsatile cul-de-sac. Below this a narrow pliable tube about the size of a pencil (0.5 cm.) passed down to a normally situated bifurcation from which two narrow common iliac

vessels emerged (Fig. 1). The wall of this atretic segment of the aorta was soft and free from calcification or induration. It was not pulsatile.

A needle was passed into the bulbous end of the aorta and an aortogram performed (Fig. 2). The report was as follows: "The aorta is of diminished calibre as far as L.V.2 level, and below there is no dye shadow in it. The main vessel is the inferior mesenteric artery and its branches, and a short segment of the right common iliac artery has

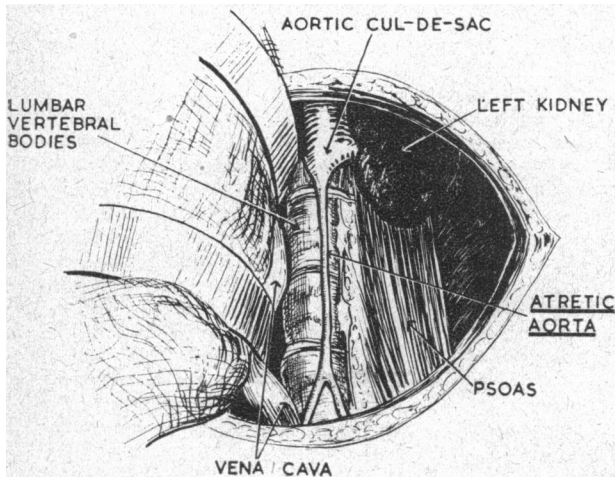


FIG. 1.—Semi-diagrammatic sketch of operative findings. The atretic aorta lies on the left side of the bodies of the lumbar vertebrae and the two rudimentary common iliac vessels are seen issuing from its lower end. On the left side lies the left lumbar sympathetic chain crossed by lumbar vessels.

been filled from right lumbar arteries and branches of the internal iliac artery via the prostatic plexus arteries and branches of the superior haemorrhoidal arteries. There is no circulation demonstrated to the right leg. On the left side the iliac and femoral vessels have been demonstrated, but are of small calibre and are obtaining their blood supply from lumbar arteries and anastomosis with branches of the inferior mesenteric arteries. There is no dye shadow below the level of the left knee-joint."

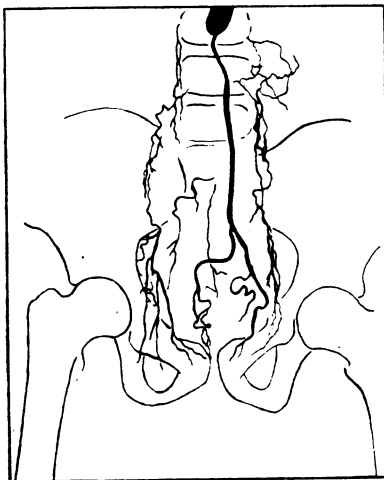


FIG. 2.—Outline of the essential features of the operative aortogram.

The patient made a satisfactory recovery from both sympathectomies. The feet became pink and warm and venous filling improved. The ulcer on the toe healed within two weeks of his discharge.

Follow-up Examination.—A year after his operations he was re-examined. The ulcer remained healed, his rest pain had disappeared. His feet were warm and his claudication distance had increased from 10 to 100 yards. He complained of a feeling of constriction in the chest brought on by effort and relieved by rest. Examination of the legs showed no return of pulses, but there was good venous filling. Electrocardiography showed no abnormalities.

Discussion

Atresia of the aorta other than at the arch is a rare condition. It has been recorded in the lower thorax (Schlesinger, 1835; Costa, 1930; Schleckat, 1933; Hasler, 1911) and in the abdomen (Power, 1861; Maycock, 1937; Holten, 1950).

The problem at issue in this case is whether the atresia was congenital in origin or whether it was caused by thrombosis. In favour of the latter concept is the late onset of symptoms and the development of anginal pain. Both are characteristic of atherosclerosis, the commonest pathological disorder causing thrombotic occlusion of the aorta.

However, the findings at operation are difficult to reconcile with this view. The softness and pliability of the atretic segment, its very small calibre, and the absence of calcification, together with the bulbous end of the upper segment, are hard to explain on a basis of arterial degeneration. Biopsy of the atretic segment would have been of some help. It was not thought justifiable because of the possibility of a non-pulsatile flow of blood through it carrying some blood to the legs.

Summary

A case of atresia of the abdominal aorta in a man of 47 is described.

The diagnosis was made when the vessel was exposed during an operation for lumbar sympathectomy.

The atretic segment was pliable and free from calcification, and it is suggested that the condition may be congenital.

We are grateful to Dr. I. D. Easton, consulting physician, Perth Royal Infirmary, for referring this patient.

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In a lecture before the Royal Society of Arts on December 8, 1955, Dr. R. S. F. HENNESSEY, a former D.M.S., Uganda, discussed some of the reasons for the astonishing rise in the annual number of new patients attending Government medical units in that country. In 1942 about 750,000 attended; 10 years later the number was over 2½ million. "In Uganda, as has happened elsewhere," he said, "one of the most notable changes in the popular attitude towards Western medicine arose from measures taken to control a disease which was not primarily tropical in any sense, but which had a high incidence and was the cause of widespread morbidity. This disease was syphilis. The dramatic way in which syphilitic lesions affecting the reproductive organs responded to arsenical injections quickly hit the popular imagination. Also, the birth of healthy babies to women who had had a series of miscarriages, or who had produced a series of congenitally syphilitic infants, was an example of therapeutic success which could not be overlooked. Thus it was that the advent of a potent drug for a widely feared disease, together with the establishment of a system of dispensaries at which sufferers could get the specific treatment, greatly accelerated the evolution of a new social attitude, in which trust and optimism replaced suspicion and anxiety. It was this change of attitude which made it possible within a short span of years to extend to unsophisticated people a range of medical services, both curative and preventive, capable of influencing their health to a marked extent."