

Original Articles

ARTERIO-VEINUS ANEURYSMS

CASE REPORTS

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In the official history of the last war Sir G. Makins describes that in 1,004 injuries to the great arterial trunks he found some form of aneurysm in 545, or 54.4 per cent. In this war, no such comprehensive series has yet been published. With regard to comparative frequency, it was found that in a series of 272 cases there were 120 examples of arterial aneurysm, 100 of arterio-venous aneurysm and 52 aneurysmal varices.

Most surgeons, engaged in treating war wounds, must have come across such cases. The following cases are reported because of a special feature in each. In the first case the situation of the arterio-venous aneurysm was unusual and rendered radical treatment very difficult. In the second the special feature is the combination of extirpation of the lumbar sympathetic trunk with radical treatment of the aneurysm in an effort to avoid circulatory disaster to the limb.

Case 1.—R/M J. B. T., 2/5 G. Rifles, sustained grenade wounds of his right arm and right side of the neck behind the angle of the jaw on 27th May, 1943. An x-ray of right arm showed no fracture, but multiple metallic F.B.'s in the arm and fore-arm.

The notes received with the patient state that a peculiar thrill was noticed in the region of the angle of right jaw on 19th September, 1943.

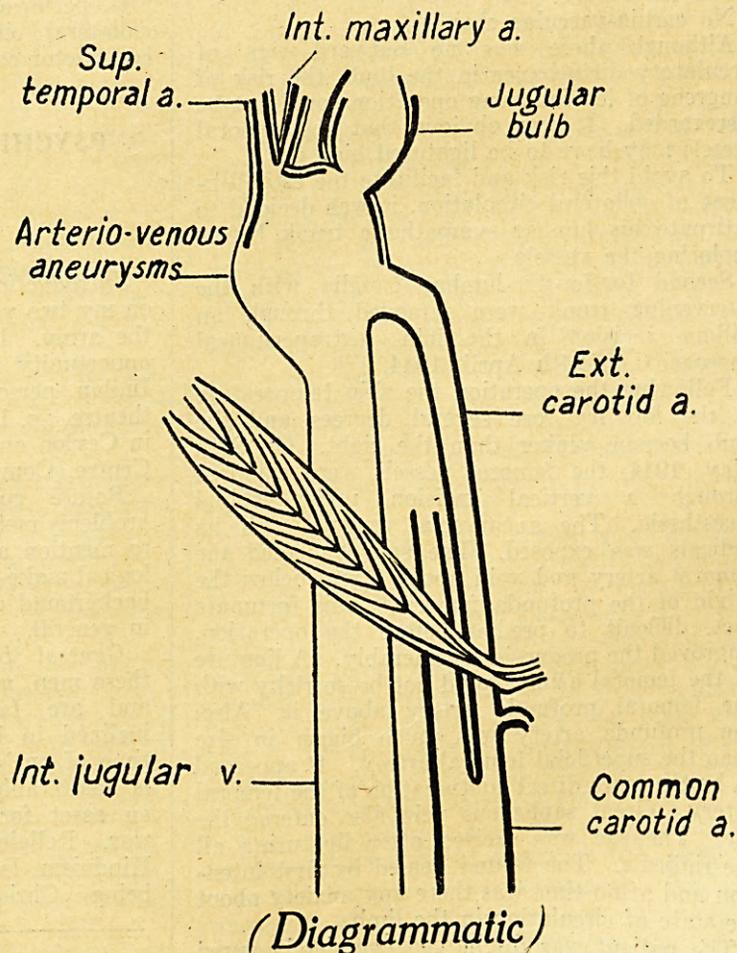
Case received on 18th January, 1944. Examination showed a complete right radial nerve palsy, a small healed scar in the right parotid region, well-marked congestion, and swelling of right half of the face particularly the parotid region. A thrill was palpable in the right half of face, temple and upper part of right side of the neck, most marked behind the angle of right jaw. A continuous rumbling murmur with accentuation in systole could be heard in the same areas with maximum intensity behind the angle of right jaw. Dilated veins showing a

tendency to tortuosity could be seen in the neck and temporal region. No cardio-vascular changes were detected nor any changes in the fundi. No involvement of any of the cranial nerves.

Patient was operated upon on 14th February, 1944, under gas and oxygen (intratracheal).

A curved incision was made below the angle of right jaw. External carotid artery was found and traced up towards the angle of jaw. Next the internal jugular vein was cleared. Both found to be joining a saccular enlargement above the posterior belly of digastric muscle. The sac was about the size of a large walnut situated about 1½ inches above the point where hypoglossal nerve crosses the external carotid artery. The sac extended upwards deep to the parotid gland and was dissected free with difficulty. Internal maxillary and superficial temporal arteries could be seen leaving the superior convex border of the sac. Both the vessels were tied. Internal jugular vein and external carotid artery tied below the sac. The latter was too close to the jugular bulb to be excised. It was plicated and stitched.

Patient passed through a stormy post-operative period. The pulse rate kept high



(160/min.) for about six days before it finally settled down with the help of digitalin.

Patient kept under observation till 29th August, 1944, and then discharged completely cured. There was no sign of recurrence of the aneurysm. The swelling of the face had subsided. The situation and relations of the aneurysmal sac are shown in the diagram.

Case 2.—R/M S. R. L., 1/10 G. R., sustained a bomb splinter wound of his left buttock on 7th March, 1944. A small splinter entered into his left buttock and came out anteriorly just below the left inguinal ligament. Case received on 10th April, 1944.

On examination, a swelling about the size of a pigeon's egg in the femoral triangle just below the inguinal ligament was found. The swelling had a marked thrill and a continuous humming murmur with systolic accentuation. The thrill and the murmur disappeared on pressure over the femoral artery above the swelling.

There was no engorgement or dilatation of veins. No swelling or oedema of leg or foot. In addition he had a complete lesion of the peroneal division of the sciatic nerve. W.R.—negative. No lesion of the femoral or its branches.

No cardio-vascular changes.

Although there was no outward sign of circulatory disturbance in the limb, the risk of gangrene of leg following operation could not be disregarded. It was obvious that the femoral vessels may have to be ligatured high up.

To avoid this risk and facilitate the establishment of collateral circulation, it was decided to extirpate his lumbar sympathetic trunk before exploring the vessels.

Second to fourth lumbar ganglia with the intervening trunk were removed through an oblique incision in the loin (extraperitoneal approach) on 24th April, 1944.

Following the operation the skin temperature of the left leg rose several degrees and the limb became pinker than the right. On 28th May, 1944, the femoral vessels were explored through a vertical incision under spinal anaesthesia. The aneurysmal sac with all its radicals was exposed. The sac connected the femoral artery and vein about 1 cm. below the origin of the profunda femoris. This fortunate fact, difficult to predict before the operation, improved the prognosis considerably. A ligature of the femoral artery could not be so risky with the femoral profunda artery above it. Also, the profunda artery was much bigger in size than the superficial femoral artery. It appeared to be the more direct continuation of the femoral artery. Great saphenous vein also entered the sac. The sac was excised after ligaturing all the radicals. The wound healed by first intention and at no time was there any anxiety about the state of circulation in the limb.

The patient was discharged completely cured on 17th August, 1944, by which time his peroneal

nerve had made a complete spontaneous recovery.

Discussion.—Reid and McGuire (*Ann. Surg.*, 1938) recommended delay in operating upon arterio-venous aneurysms because a small one may close spontaneously.

In Carson's book, Grey-Turner recommends removal only for certain indications like pain, buzzing noises, increase in local distension of the vein, eye disturbances, cerebral symptoms, increase in size with aching and evidence of cardiac dilatation or embarrassment.

Delay in operation improves prognosis by allowing time for collateral circulation to develop. However, prolonged delay is known to lead to cardiac derangement more particularly if big vessels near the heart are involved.

Operation was not delayed in the first case because of this consideration and swelling of face which was increasing.

In the second case, it was apparent that high ligation of the femoral artery might become necessary which carries a distinct risk of gangrene of distal part of the limb. Even when gangrene does not ensue, the function of the limb is affected on account of circulatory disturbances like coldness, oedema on exercise or trophic changes. Lumbar ganglionectomy was performed to help the establishment of collateral circulation by removing the vaso-constrictor control of vessels.

* PSYCHIATRIC PRACTICE AMONGST INDIAN TROOPS

By KIRPAL SINGH

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Introduction.—These observations are based on my two years' experience as a psychiatrist in the army. During this period I have had the opportunity to treat and dispose of over 1,800 Indian personnel in a forward area in this theatre, i.e. 15th Indian Corps, in base hospitals in Ceylon and in the Advance Base Psychiatric Centre, Comilla.

Before coming to the actual psychiatric problems met with in these troops, I should like to mention a few points regarding the psychological make-up and social, cultural and religious background of the I.O.R. (Indian Other Rank) in general.

General background.—A vast majority of these men, mostly illiterate, come from villages and are farmers by profession. They are inclined to be fatalistic and believe that the time of one's death is fixed by Providence and is unalterable. This belief would appear to be an asset for soldiering especially in times of war. Religiously the main faiths professed are Hinduism, Islam and Sikhism, a small minority being Christians. A considerable number

* A paper read at the conference of 12th Army Psychiatrists at Rangoon on 11th November, 1945.