Iliac aneurysms

Internal iliac aneurysms are rare. One third of patients complain of pain radiating down the leg. Differentiation from pain due to a lumbar disc herniation is difficult and the incidence of disc disease is much higher. CT scanning of the lumbosacral plexus makes the diagnosis considerably easier and avoids unnecessary operations and invasive investigations.

A 74 year old male was admitted on 7 October 1988 with a ten day history of irradiating pain in the left lateral thigh. He had no sensory, motor or micturition difficulties. On examination, straight leg raising was reduced as were the tendon reflexes in the left leg. The interpretation of these findings was difficult due to severe pain.

In May 1988 he presented with signs of a ruptured aortic aneurysm and a trouser graft was inserted end-to-end to the aorta and external iliac arteries. The origin of the left iliac artery which was also aneurysmal was ligated. Plain radiographs of the lumbar spine and CT scans of L3-4, L4-5 and L5-S1 were normal, but a pelvic scan showed the aneurysm, with a diameter of 5 cm, in the region of the plexus. There were no signs of bleeding. The patient was operated on the 13 October. An aneurysm containing old blood was found with an arterial feeder. The aneurysm was resected. After the operation the irradiating pain in the left leg was less than before, but the patient had a drop foot. A new CT scan showed a haematoma at the site of the aneurysm, which was contiguous with the lumbosacral plexus (figure). In the course of the next few months the pain disappeared and the drop foot improved considerably. Half a year later the patient died from a malignant tumour of the stomach, unfortunately without necropsy.

We thank RMJM Butzeelaar, for performing the operations.

After exclusion of the more common causes of radicular pain a CT scan of the pelvis established the diagnosis which was confirmed by operation and the postoperative clinical course. Vock et al. published in this journal a study on the correlation between the anatomy and CT scanning of the pelvis. The postoperative CT scan showed a haematoma exactly at the expected place of the lumbosacral plexus, corresponding with the drop foot of our patient.

"Disconnected" integral ventriculoperitoneal shunt systems

Patients with hydrocephalus treated with a shunt system frequently attend hospital with symptoms which may be the result of valve dysfunction. It is usual practice to take radiographs of the shunt system, to detect displacement or disconnection. The system most commonly used at Alder Hey Children’s Hospital in Liverpool, has been the Paediatric Integral Shunt system incorporating the Hakim mechanism manufactured by Cordis. This system is radio-opaque, apart from the valve chamber itself, and continuity is easily seen on a plain radiograph. We report an anomaly, which was a possible cause of radiographic misdiagnosis.

A three year old child was admitted with a three day history of “not being himself”, drowsy and lethargic. He had a Cordis Integral Shunt (ventriculoperitoneal) inserted at the age of three months for posthaemorrhagic hydrocephalus. A radiograph of the shunt system was thought to show a disconnection at the lower border of the valve itself (fig 1).

To assess whether the patient’s shunt was not functioning correctly, a Huber needle was inserted aseptically into the reservoir at the end of the ventricular catheter. The intraventricular pressure was raised (180 mm of water), and the column of CSF did not fall when the valve was pumped, suggesting a malfunction of the valve itself or in the tubing distal to the valve chamber. The lower end of

Figure The CT scan shows compression of the lumbosacral plexus at the anterior border of S1 by a haematoma. On the right the intact plexus is visible. The white arrow points to the lumbosacral plexus.

Figure 1 Skull radiograph showing Hakim integral valve system in situ with a reservoir connection to the ventricular catheter and a “disconnection” at the lower end of the valve (1). It is better seen in the enlargement—Inset (A). Inset (B) is an example of the valve system itself, showing the clear tubing connecting the valve to radio-opaque tubing which on a radiograph appears as a “disconnection” (1).
the valve was therefore explored. At operation it was found that the explanation of the x-ray appearance was that the "disconnected" part of the catheter was made of clear, non-radio-opaque plastic tubing with direct continuity between the valve and the radio-opaque catheter which started 3 mm from the metal valve (fig 1, inset B). Exploration of the abdomen showed that the peritoneal catheter was blocked with omentum and that portion was replaced. There was free flow of CSF from the end of the peritoneal catheter when it was returned to the abdomen. The patient has remained well postoperatively, more than two years later.

Since this episode, other patients with Cordis integral valve systems have had their shunt systems x-rayed showing a similar "disconnection". Systems from different batches of manufacture, and both medium and low pressure systems were involved.

It is therefore important that, when such integral systems are inserted, the continuity of the radio-opaque tubing is noted and documented to avoid a subsequent unnecessary exploration. The manufacturers inform us that the permissible gap is less than 3.8 mm, usually between 1–2 mm, so that a small gap is expected and normal. These figures hold for standard (that is, non- paediatric size) valves as well.

Radiologists and clinicians need to be aware of this when studying radiographs so that there is no misdiagnosis of disconnection and an unnecessary exploration is avoided.

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SHORT NOTICES


A genuine pocket size atlas showing in detail the normal anatomical structures of the spine and neuraxis, based mainly on T1 weighted SE and GE images. The quality of black and white illustrations is high and they are clearly labelled. An invaluable small textbook guide for the many who get lost in the minutiae of foraminal veins, facet joints and dorsal root ganglia which these marvellous images can show.


This is an attempt to rejuvenate determinism by using "neuroscience" ideas. There are serious limitations in the analysis of brain–mind relationships and the consequent philosophical deductions as contemplated by non-neurologists. This erudite volume may be more attractive to word-mongering philosophers than to clinical neuroscientists. The neurological part towards the end of the book is unsatisfactory and has little clinical relevance.