SPINA BIFIDA (OCCULTA) WITH PREGNANCY

(Report of a Case)

by

RAJEE S. IYER*, M.D., D.G.O.

and

L. I. ASHAR**, M.B.B.S.

Spina Bifida (synonym — Rachischisis) is defined as incomplete closure of the vertebral canal, which is usually associated with a similar anomaly of the spinal cord.

A number of varieties of spina bifida are described differing according to the nature and severity of the spinal defect. In the severe form a sac protrudes through the vertebral opening. The sac may contain meninges only — meningocele; in most of the severe cases it contains both the meninges and the flattened, opened spinal cord — myelocele or meningomyelocele. In the least severe cases there is no protrusion but a defect in the laminae may be palpable as a depression, which is sometimes covered by a dimple or a tuft of hair (Spina Bifida Occulta). Spina bifida is sometimes hereditary. Its commonest site is the lumbosacral region. Occasionally it is found in the thoracic region, very rarely in the cervical. In the lumbosacral spina bifida the spinal cord frequently retains its foetal length and extends as low as the sacrum. The flattened cord and nerve roots are often embedded in a pad of fat.

Spina bifida occulta may give rise to no symptoms and may be an accidental discovery in the course of routine examination. It is present in 17 per cent of all spines x-rayed (Curtius and Lorenz). It is of considerable clinical importance, however, since it sometimes gives rise to symptoms, the cause of which is not immediately evident. In a small percentage of cases, who have some involvement of the central neural axis or nerve roots, it becomes apparent in several ways, because of either musculo-skeletal or sensory disorders of the lower limbs or disturbances in bladder and bowel functions. The extent of the neurological impairment varies with the level and extent of involvement of the nerve roots. Such severely neurologically affected patients rarely survive till adult life because of intercurrent infection, which probably explains why so few cases are reported with pregnancy. In the literature, so far nine such cases have been reported, the present being the tenth, the last one being reported by Caughey in 1960.

*Registrar.

**House Surgeon.

Department of Obstetrics & Gynaecology, K. E. M. Hospital, Parel, Bombay 12.

Case Report

L.B., twenty-five year old, sixth para, was admitted on 9th July 1964 with history of nine months' amenorrhoea and pains. Patient gave history of faecal and urinary incontinence since childhood. There was no history of any retention of urine. Regarding anal incontinence, the patient said that she was unable to hold the faeces once she experienced the desire to pass a stool. Patient has been bed-ridden for the last two years.

Her past obstetric history was that she had three full-term normal vaginal deliveries, and two premature deliveries of 8 and 7½ months respectively. One full-term child and both the prematures are dead. Last delivery, which was full-term, was 2 years ago. Past history: patient gave history of some operation being done in the anal region at the age of 15 years, inspite of which she continued with anal incontinence. There was history of being operated at the K. E. M. Hospital in 1957, when repair of spina bifida was attempted. The procedure adopted then was — a curved incision of about 8 inches long in the lumbosacral region. The defect over the sacrum was exposed, which was seen to contain fibro-fatty tissue. The erector spinae muscles were retracted. The spinous processes as well as the laminae of the 4th and 5th lumbar vertebrae were clipped off. The spinal cord was seen to extend to the 2nd sacral level and was adherent to the fibro-fatty tissue, which was excised as much as possible. The spinal cord was then snugly fitting in the gap, which was covered with erector spinae muscles and the skin was closed.

No improvement was noticed in the urinary and anal incontinence following the operation.

History of operations having been done for deformities of the legs — in the nature of tenotomy — 6 years back.

On examination per abdomen: Uterus was 32 weeks' size, presenting part was vertex, engaging, foetal heart sounds being heard in the left anterior quadrant.

General examination revealed blood pressure 100/60 mm. of Hg. There was no oedema of feet. Nails and conjunctivae were pink. Respiratory, cardiovascular and alimentary systems were normal.

On examination — vertical scar — 6 inches long seen in the lumbosacral region. Bed sore, size — 2″ x 2″ present over the right gluteal region. Scar seen over the dorsum of both the feet in the region of the first metatarsal bone.

Examination of central nervous system revealed no abnormality in cranial nerves and upper limbs. There was moderate weakness of hip extensors, abductors and dorsiflexors, plantar flexors, evertors and invertors of ankles with wasting of calf and gluteal muscles. There was pes cavus deformity of both feet with hammer toes. Both ankle jerks were lost and plantar reflexes were unelicitable. Abdominal reflexes were present. Examination of sensory system showed sensory loss over lateral aspect of both soles and over the perineal region (S_3-$_5$) for touch, pain and temperature. Vibration sense was diminished upto knees and position sense was lost in toes. There were trophic ulcers over sacral area and both soles.

Details of the present labour

On 15th July 1964 morning, on examination the presentation was vertex$_1$ floating, foetal heart sounds left anterior quadrant. At 8-30 p.m. there was rupture of membranes; uterus was contracting, presentation was transverse with head in the right iliac fossa. Foetal heart sounds were 150 per minute.

Vaginal examination revealed cervix 4 fingers loose, not well applied. Right elbow was palpable in the vagina and a diagnosis of right dorso-anterior position was made. Full dilatation of the cervix was awaited and at 11 p.m. internal podalic version with breech extraction, followed by manual removal of placenta, was done under nitrous oxide, oxygen and ether anaesthesia.

Female baby weighing 4 lbs. 2 ozs. was delivered and the child cried immediately.

Puerperium: In the first 24 hours patient had temperature of 105°F. which touched normal after 48 hours. Patient was treated with antibiotics and symptomatically.

Patient was discharged at request on 27th July 1964.

Investigations revealed haemoglobin 70

per cent, urine normal and x-ray spine — Spina Bifida of L_4, L_5 and sacral spine.

Comments

In the case presented above the patient had no symptoms or signs of urinary infection, which is probably because of the continuous dribbling of urine with no chances of retention of urine or ascending infection occurring. This patient did have bony deformity of the legs, but the pelvic architecture was within normal limits as indicated by the vaginal deliveries, which was also confirmed by the vaginal examinations, except for the present labour when a podalic version was done. Even in this pregnancy the presentation was vertex all throughout except when the patient went into labour, when the presentation changed into transverse. This aspect is noteworthy because with the bony deformities of the legs there is some amount of deformity of the pelvis associated, which makes cephalo-pelvic disproportion a real danger. Though in this patient the defect was in the low lumber region, the patient experienced normal labour pains with normal bearing down efforts, which was also experienced in previous deliveries. Uterine contractions were normal, which is expected because uterine activity is under intrinsic control.

Summary

A case of Spina Bifida Occulta with pregnancy is reported with review of the pathology and symptoms of the condition.

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