

## BRIEF REPORT

### COMPLICATIONS OF MATERNAL SPINA BIFIDA

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#### Summary

A case of repaired lumbar meningomyelocele with urinary diversion complicating pregnancy is reported. The complications anticipated and those that arose are discussed and the genetic aspect alluded to.

#### Introduction

With improved health care and neurosurgical techniques, patients with severe neural tube defects are surviving to adulthood and in females to motherhood. In spite of this, these cases are rare and the complications associated with the pregnancy are infrequently seen. To our knowledge this is the first reported case in Ireland and a review of the literature reveals only two brief case reports, Fujimoto *et al* (1973) and Opitz (1973).

#### Case Report

The patient, a 29 year old female had a low lumbar meningomyelocele repaired shortly after birth. She was paraplegic with total urinary incontinence. At the age of 13 she had her urine diverted through an ileal conduit.

Her first pregnancy at the age of 26 was uneventful being delivered by low forceps of a healthy infant. Her second pregnancy was similarly uncomplicated. In this her third pregnancy she admitted herself at 20 weeks complaining of general malaise and of pain in both renal angles, both loins with a stinging discomfort around the stoma. She felt 'hot and cold' and had had anorexia with vomiting for two days. Her pulse was 100 beats per minute, blood pressure 120/60 mm Hg. and her temperature was 37°C.

Her abdomen was soft, bowel sounds were present and the uterine fundus was equivalent to the duration of pregnancy. There was marked tenderness over her left loin. The baby was alive and she was not in labour. The ileal conduit was functioning satisfactorily. Investigations showed her blood analysis to be within normal limits, however urinalysis showed Ketonuria, a bacterial count in excess of 100,000 organisms

per ml. with 500 leucocytes per cu. mm. Culture showed Klebsiella pneumoniae and Proteus mirabilis.

#### Treatment

She was commenced on intravenous Cephalosporine and she responded well. However following treatment she had a relapse and this pattern repeated itself on several occasions with loin pain being the most persistent symptom. Various antibiotics including Erythromycin, Naladixic acid and Clavulanate-potentiated Amoxicillin were required and she was detained in hospital for the remainder of her pregnancy.

At 37 weeks she went into premature labour and shortly afterwards had a spontaneous rupture of membranes. She had clear liquor and following a rapid labour she had a normal delivery of a healthy infant. Both mother and baby progressed well and were discharged home later in the puerperium.

#### Discussion

According to Hudson (1972) and Lennenberg (1972) the obstetrical complications in patients, who have had previous urinary or intestinal diversion, include a 10% incidence of intestinal obstruction during pregnancy. Our patient, however, did not obstruct but had repeated episodes of acute pyelonephritis. A suggested explanation for this is that the gravid uterus can compress the ureter above the pelvic brim against the lumbar spines; the ureter would be particularly susceptible as a result of its transposition within the retroperitoneal space to facilitate its anastomosis to the ileal conduit. The management of labour and delivery, in cases of maternal spina bifida, should not differ from that of any normal patient. This is well illustrated by our patient who, although going into premature labour on this occasion, nonetheless had a normal delivery. It is important to remember that Caesarean Section in these patients may be complicated by intra abdominal adhesions. Hudson (1972).

It is of interest to note that the incidence of spina bifida in a baby born to an affected parent is from 3% to 7% Carter (1973) and Tunte (1971).

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Our thanks are due to Dr. T. D. Hanratty for giving us permission to publish this case.

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