

## LEFT SIDED ABDOMINAL WALL DEFECT: A CASE REPORT

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### ABSTRACT

Omphalocele and gastroschisis are congenital abdominal wall defects. Gastroschisis typically occurs to the right of the umbilicus. Left sided gastroschisis is rare. A case report of an abdominal wall defect in the left upper part of abdomen, distant from an intact umbilicus is presented. Only two similar cases have been reported in literature.

**Key words :** Omphalocele, left sided gastroschisis, left sided abdominal wall defect.

### INTRODUCTION

Abdominal wall defects at the left upper quadrant are very rare and only two similar cases have been reported in literature. A case report and the embryological basis of abdominal wall defects is presented.

### CASE REPORT

A Stillborn male foetus of 34 weeks of gestation, born vaginally to a 20 years old primigravida was referred to the department of Anatomy to identify other anomalies if present, on dissection.

The mother had non – consanguineous marriage. She did not have any antenatal history of drug intake. There was no history of use of intrauterine contraceptive device.

Prenatally the foetus had been diagnosed as having gastroschisis. On external examination the weight of the dead foetus was 1460gms. The head circumference was 29cm; the crown - rump length was 25cm and the crown - heel length was 38cm. An abdominal wall defect of size 2.7cm x 2.9cm was found at the left upper quadrant of

abdominal wall, through which dark colored, with almost necrotic stomach, loops of small bowel and liver had herniated. The stomach, loops of small bowel and liver were not covered by any membrane (fig–1).

The abdominal wall defect was at a distance of 5cm from an intact umbilicus (fig-2).

After dissection regression of the left umbilical vein and left sided omphalomesenteric artery were not seen.

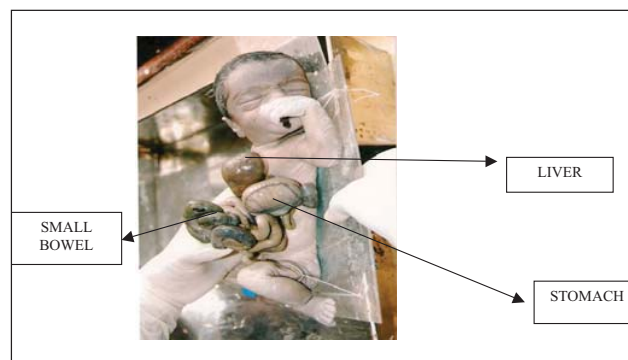


Fig – 1 : The stomach, loops of small bowel and liver were not covered by any membrane



Fig – 2 : The abdominal wall defect was at a distance of 5cm from an intact umbilicus

### DISCUSSION

Omphalocele is a body wall defect due to failure of the gut to return to the body cavity<sup>1</sup>. Gastroschisis is typically a small

abdominal wall defect immediately to the right side of normal umbilical cord<sup>1</sup>.

Left gastroschisis is rare, sixteen cases have been reported in literature<sup>2</sup>.

The abdominal wall defect reported in this case is markedly different from the left sided para umbilical defects described in literature.

A similar case was reported by Melikoglu et al. in 1998<sup>3</sup>. These authors described a newborn with an abdominal wall defect in the left upper quadrant of abdominal wall of size (5x3cm). Another case similar to the current one was reported by Fraser N. and Crabbe D.C.G. in 2001<sup>4</sup> of size (8mm linear). According to them, trauma from an intrauterine contraceptive device may have been the cause of left sided abdominal wall defect.

#### EMBRYOLOGICAL BASIS

Left sided gastroschisis is the result of local weakness in the fascia following regression of the left umbilical vein<sup>5</sup>.

Abdominal wall defects are the result of disturbed development of embryonic umbilicus and gastroschisis is a ruptured small omphalocele<sup>6</sup>.

Homeobox genes such as HLXB9 with mutation causing developmental field defects in intra embryonic mesoderm may be responsible for abdominal wall defects<sup>7</sup>.

There is a relationship between maternal smoking and gastroschisis<sup>8</sup>.

#### CONCLUSION

Left sided abdominal wall defects are rare. Regression of left umbilical vein and trauma from intrauterine contraceptive device are the probable causes of left sided abdominal wall defects.

Till date the exact cause of left sided abdominal wall defects as is reported in our case

is not known and for that, further studies are required and it is challenging because these cases are very rare.

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