Congenital duodenal obstruction severity prediction by medical imaging ?

Vogeler F.[1], Riebe K.[2], Varol-Mundt E. [3], Ruhland F.[1], Barthlen W.[3]

[1]Gsund Kompetenzzentrum, Stralsund, Germany
[2]PraxisklinikWARMBAD, Stralsund, Germany
[3]Department of Paediatric Surgery, University of Greifswald, Germany

Abstract objective:

Congenital duodenal obstruction is the most common cause of of fetal bowel obstruction. It is thought to be the result of abnormal duodenal canalisation leading to partial (web /stenosis) or complete (atresia) obstruction. Depending on its severity the congenital anomaly can present at a variable time or even remain asymptomatic. In cases of partial dudenal obstruction is possible to reliably estimate severity by medical imaging ?

Abstract methods:

Case report; literature review.

Case report:

After a unremarkable 22-weeks scan a fluid-filled stomach and duodenum was seen in late III-Trimester (Fig.1-2). Connection between those two structures suggests congential duodenal obstruction. Hyperperistalsis of stomach, fetal regurgitation or Polyhydramnios were not present at any time. Fetal karyotyping was offered. Follow up scans revealed normal fetal growth and amniotic fluid volume hypothesizing a less pronounced obstruction.

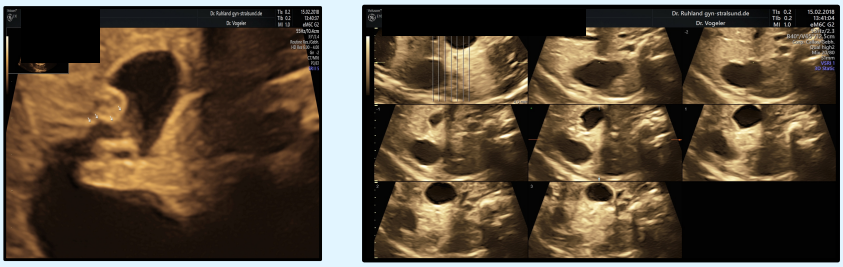

Fig.1-2 Connection between fluid-filled stomach and duodenum

Corresponding to the double bubble sign seen on ultrasound inital postpartum radiography showed partial duodenal obstruction with potential evidence of liquid passage(Fig. 3-5). Hence leading to postpone surgery initially. Deterioration of the neonate was followed by surgical intervention (Fig. 6). Annular pancreas was not present. After successful surgery the newborn was discharged showing no feeding problems

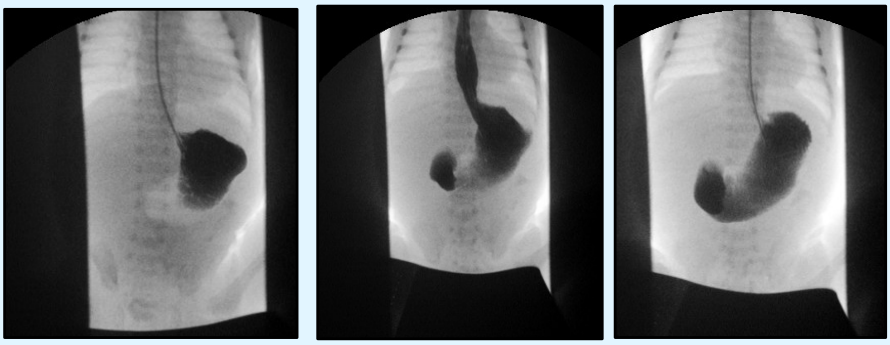

Fig.3-5 postpartum radiography

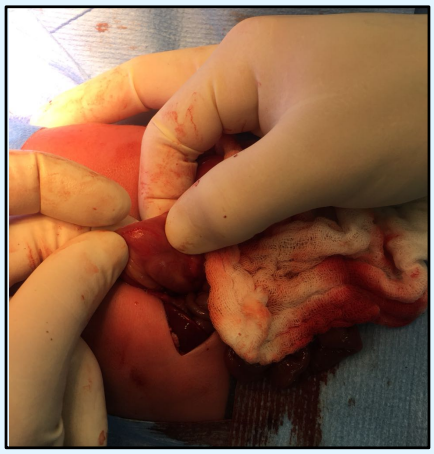

Fig.6 surgical intervention

Conclusion:

In this case of partial dudenal obstruction severity and outcome were not reliably estimate by medical imaging. Which is in accordance with the analysis of current literature and data on the subject.