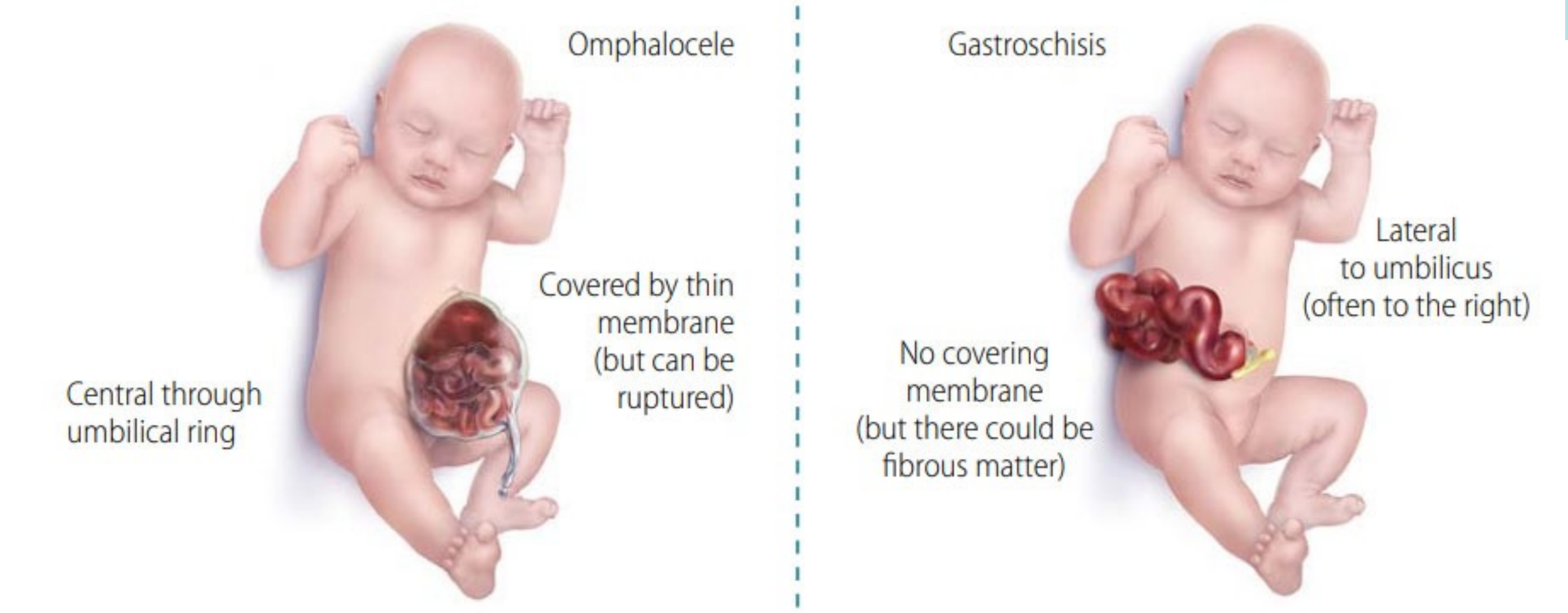


Annual review of abdominal wall defects in a tertiary Fetal Medicine centre in Scotland

by Sarah Wright¹ and Dr Laurie Anderson²

Introduction

Gastroschisis and exomphalos are the two most common congenital abdominal wall defects(1,2). They are typically detected due to routine fetal ultrasound. Gastroschisis is commonly associated with other gastrointestinal abnormalities(3). Gastroschisis is not associated with aneuploidy or other congenital abnormalities compared to exomphalos(3). The management of exomphalos and gastroschisis aims to reduce abdominal contents and close the defect(1).



Picture 1 –Exomphalos and Gastroschisis(4)

Objective

We evaluated the characteristics of gastroschisis and exomphalos cases to:

- benchmark recent outcomes in both mothers and babies within our tertiary centre
- Elucidate up to date counselling information.

Design

A retrospective review of computerised medical records of patients who had been diagnosed with gastroschisis/exomphalos, delivered at a tertiary hospital from January 2021 – December 2021.

Method

This was a quantitative study using BadgerNet, searching for fetal anomalies where ‘gastroschisis’ or ‘exomphalos’ was confirmed/suspected or displayed at birth. We did not look at data for terminations in trisomies associated with exomphalos.

Maternal Results

- Mothers had an average age of 24 years (min 17, max 35). Half of the women (6) were primigravida. 66% of BMI’s were classed as overweight or obese at booking. Most mothers (67%) were non-smokers. 42% of women were non-drinkers.
- The majority (83%) of deliveries were via caesarean section either elective (58%) or emergency (25%).

Fetal Results

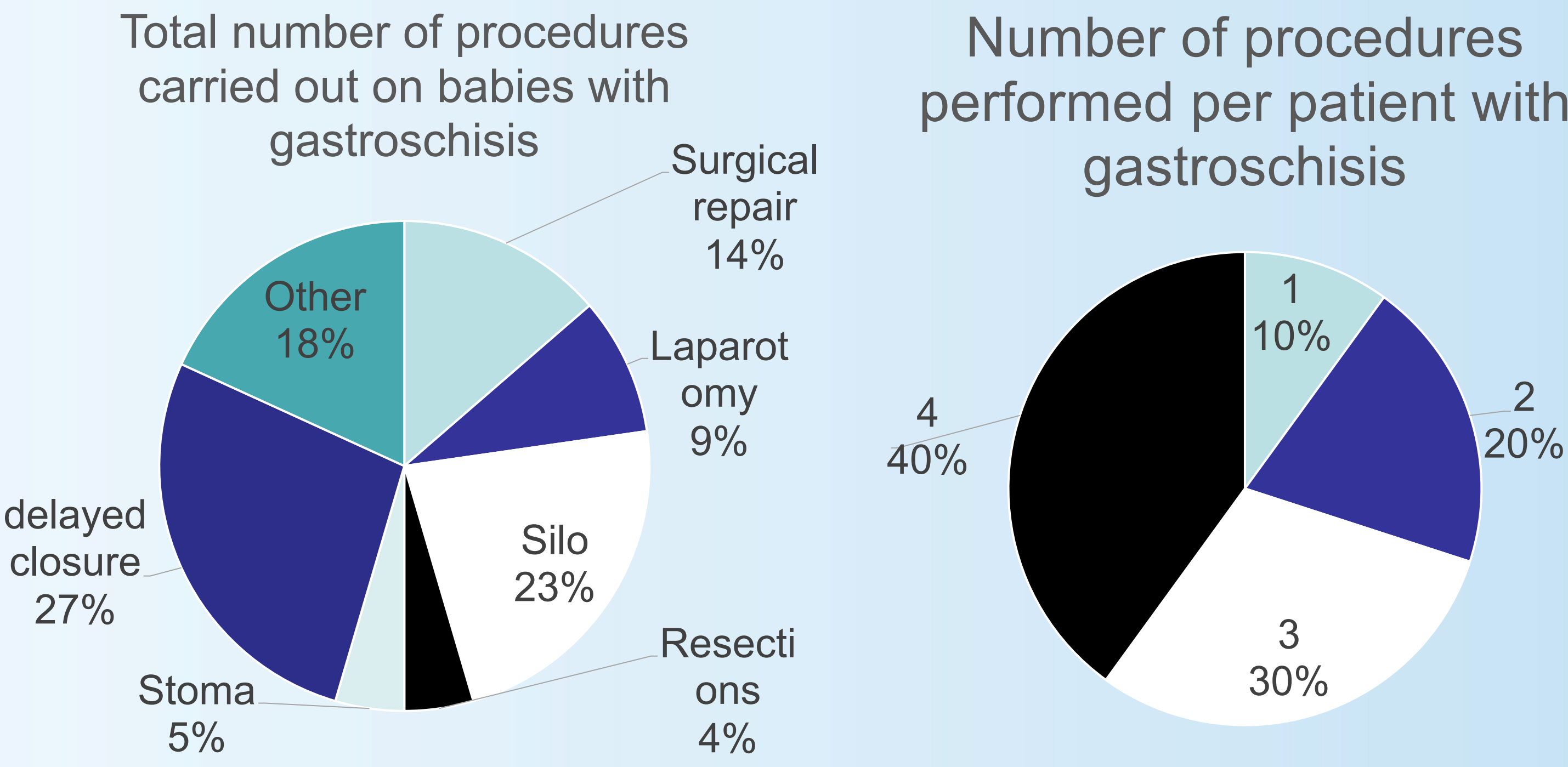
- 12 cases were identified in total. 10 were gastroschisis and 2 ongoing exomphalos. The majority were singletons with one case of dichorionic diamniotic twins.

Gastroschisis

- The outcome of births were 80% live births, 10% still birth, 10% neonatal deaths.
- The average gestation was 33.9 weeks (minimum 28.86, maximum 36.71). Actual birth weight was on average 2194.2 grams (minimum 1300, maximum 3275). 90% of babies had no other congenital abnormality.
- No other congenital abnormalities were present
- The most common complication after birth was sepsis (50%).
- Eight babies underwent surgical procedures. The majority required more than one surgical procedure
- The most common procedure carried out on the babies was delayed closure (27%), silo (23%) and surgical repair (14%). Other include gastrostomy and rectal biopsy. 1 baby required further surgical follow up.

Exomphalos

- Two babies had exomphalos. One baby resulted in a live birth, one neonatal death.
- The gestations were 36.86 and 37.43 weeks. Actual birth weight ranged from 1000 grams and 2700 grams.
- Two congenital abnormalities were present with exomphalos, either a cardiac or neurological abnormality detected. One baby had 3 congenital abnormalities including gastroschisis, intrauterine growth restriction and cardiac abnormalities.
- Surgical repair was performed with surgical follow up required. Complications included sepsis, jaundice, pulmonary hypoplasia, ASD and VSD.



Conclusion

Mothers who have babies with gastroschisis are most likely primigravida and are from a younger age group. The majority underwent delivery by elective caesarean section even though there is limited risk with a vaginal delivery. Most of these pregnancies resulted in live births.. The majority of babies required more than 1 surgical procedure but very few required further surgical intervention once treated. This is very useful information to counsel women referred to our tertiary centre

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