FIXIOL: Induction of Labour Outcomes at a Major Tertiary Hospital

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INTRODUCTION

The World Health Organisation defines the Induction of Labour (IOL) process as the process of artificially stimulating the uterus to start labour and is usually performed by administering oxytocin or prostaglandins to the pregnant woman or by manually rupturing the amniotic membranes. In Western Australia, the incidence of IOL has continued to rise. This poses implications as IOL uses significant hospital resources such as surveillance of oxytocin infusions, ongoing intrapartum foetal monitoring and increased midwifery workload[1]. Furthermore, the IOL process does not come without risk to both the mother and fetus which needs to be carefully considered. For example, our original audit found a 3 fold increase in the number of caesarean sections for those undergoing IOL compared with those who spontaneously laboured. In addition, there was a mean time to commencing induction of 4.5 hours after admission.

OBJECTIVES

Our aim is to audit the demographics, management and outcomes of women undergoing IOL at a major tertiary hospital. It is our hope that our data will be a vehicle for change to emplace evidence-based measures that will improve clinical service of Induction of labour for further mothers at our hospital.

METHODS

Data collection of this audit examined randomly chosen 50 cases of women undergoing inpatient IOL between the time period of January – July 2021 for the same outcomes. A total of 813 women underwent IOL during this time period out of 1866 births. Data was collected from electronic patient records, analysed via SPSS using simple statistics. Further data collection and analytical comparison to the 2018 audit for other parameters (Estimated blood loss, time to delivery etc) are still pending.

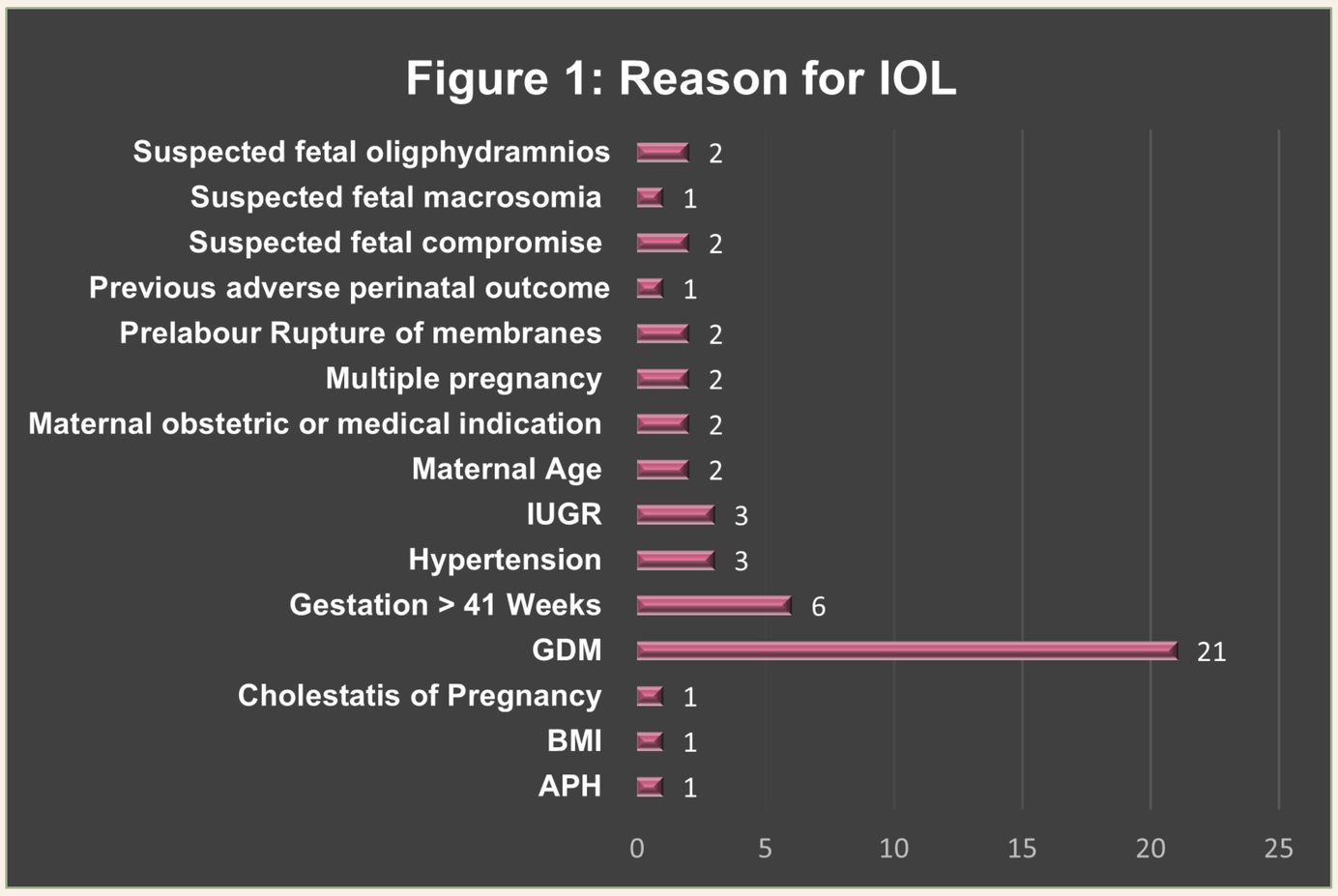
RESULTS

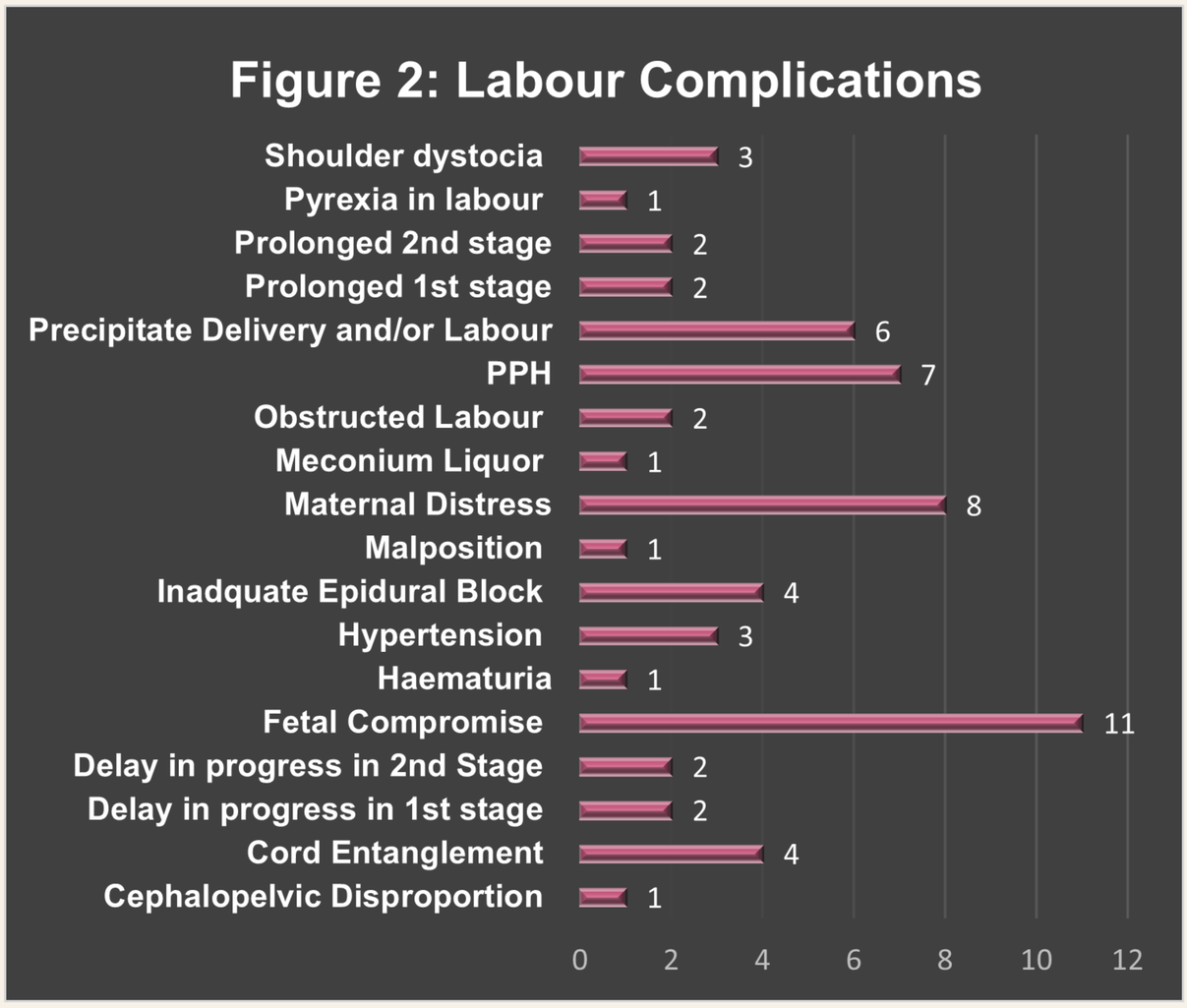
<u>Demographics</u>

1. The average age was 29.22 years old
2. Median gestation was 39 weeks with 11 women being post dates (>40 weeks) and 2 women delivering prematurely (<37 weeks)
3. Majority of women were Nulliparous (52%)
4. Average BMI was 28.3

<u>Induction of Labour Process</u>

1. The IOL rate was 43%
2. 62% had written consent for IOL
3. The predominant reason for an IOL was GDM (42%) (Figure 1)
4. Delivery Method – SVD (30%), Instrumental (26%), Emergency Caesarean (12%)
5. 70% of women experienced Labour Complications. The most common was Suspected Fetal Compromise (22%) (Figure 2)





CONCLUSION

Women undergoing IOL represent a significant proportion of women delivering at our hospital, and the rate of IOL has increased significantly from 28% to 43% between the years 2018 – 2021. Gestational Diabetes Mellitus (GDM) remains the predominant reason for an IOL with Gestational age >41 weeks being the second most common reason. Similarly, to the 2018 audit, majority women who underwent an IOL were nulliparous. 37 out of the 50 women also required 2 or more IOL methods. Comparing the above data with those from the 2018 audit can provide meaningful trends that can help inform our expectations of women undergoing IOL. We hope these results will be further utilised by the department to help established a safer, better IOL process at our hospital

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References

1. O'Dwyer, S., Raniolo, C., Roper, J. and Gupta, M., 2015. Improving induction of labour - a quality improvement project addressing Caesarean section rates and length of process in women undergoing induction of labour. BMJ Quality Improvement Reports, 4(1), pp.u203804.w4027.