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benefit of avoiding inhalational agents like sevoflurane (which is Halothane derivative acts a tocolytic) aids in preventing blood loss and saves on cost and complications of intubation.

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50 The labour progression study (LaPS): duration of labour following zhang's guideline and the who partograph – A cluster randomised trial

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Introduction and aim: Traditionally, the progress of labour is measured by cervical dilatation. However, the expected progression varies between countries and there is no consensus regarding which guideline is best suited for clinical use. The applicability of stages, phases and time limits in labour is challenging, mainly because of variations in defining the onset of labour and transition of phases and stages. One concern is that women may undergo unnecessary interventions because slow progress of labour is poorly defined. Therefore, understanding the normal variations of duration of labour is of great importance and should be the basis for identifying the actual slow progress of labour, which requires interventions. The purpose of present study was to investigate labour duration in different phases of labour when adhering to Zhang's guideline for labour progression compared with the WHO partograph. **Method:** This is a cluster randomized controlled trial in 14 birth care units in Norway, randomly assigned to either the intervention group, which followed Zhang's guideline, or to the control group, which followed the WHO partograph, for labor progression. 7277 nulliparous women with singleton foetus in a cephalic presentation and spontaneous onset of labour at term were included. **Results:** The adjusted median duration of labour was 7.0 h in the Zhang group, compared with 6.2 h in the WHO group; the median difference was 0.84 h with 95% confidence interval [CI] (0.2-1.5). The adjusted median duration of the first stage was 5.6 h in the Zhang group compared with 4.9 h in the WHO group; the median difference was 0.66 h with 95% CI (0.1-1.2). The corresponding adjusted median duration of the second stage was 88 and 77 min; the median difference was 0.18 h with 95% CI (0.1-0.3). **Conclusion:** We observed statistical significant differences in the duration of labour between the compared groups.

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53 Impact of terms of patients' primary referral to the tertiary center on perinatal management in cases of conditionally non-lethal congenital anomalies

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Objective: Congenital diaphragmatic hernia (CDH), omphalocele and gastroschisis are conditionally non-lethal congenital anomalies, which have high rate of associated structural and chromosomal pathology, variable anatomical/clinical features. This results in variable perinatal outcomes. Early referral to the tertiary center of fetal medicine allows timely complex prenatal evaluation and more options of pregnancy management in severe cases. We aimed to analyze terms of primary referral of pregnant women to department of fetal medicine in cases of CDH, omphalocele and gastroschisis in the fetus, to establish perinatal management. **Study design:** A retrospective 12-year hospital cohort (2007–2018) with review of medical records, ultrasound and cytogenetic reports. **Results:** There were referred 150 women with omphalocele in the fetus, 152 with gastroschisis and 200 with CDH. Mean terms of primary referral were 18.46±7.2, 23.8±7.0 and 27.37±7.20 weeks respectively, the proportion of patients referred before 22 weeks of gestation - 78.7%, 53.3% and 38.5% (difference of all values in all groups was statistically significant, P<0.01). Fetal karyotype was obtained in 77.3% cases of omphalocele (n=116), 54.6% cases of gastroschisis (n=83) and 45.0% of CDH (n=90). Chromosomal abnormalities were diagnosed in 32 fetuses (27.6%/21.3%) with omphalocele and in 7 fetuses (7.8%/3.5%) with CDH. In gastroschisis were found 3 cases (1.97%) of chromosomal polymorphism and 1 of chromosomal inversion (0.66%). Associated structural malformations were present in 41.3% cases of omphalocele, 12.5% of gastroschisis and 23.5% of CDH (P<0.05). In presence of associated pathology (chromosomal+structural) before 22 weeks were referred 80.85% of omphalocele and 50.0% cases of CDH (P<0.0001), in isolated variants - 74.1% of omphalocele and 34.2% of CDH (P<0.0001). **Conclusions:** Referral of patients to the tertiary center was early in most cases of fetal omphalocele, late in most cases of CDH and in half cases of gastroschisis. This situation limited timely complex prenatal evaluation and establishing of perinatal management.

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60 COVID Collaboration – NHS elective caesarean sections in a private maternity hospital setting – The portland hospital experience

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Objective: To review the logistical utilization of private health care by the National Health Service (NHS) during the COVID-19 pandemic for maternity patients, in London. **Design:** Retrospective analysis of NHS elective Caesarean sections (CS) carried out in The Portland Hospital (TPH). **Results:** TPH carried out 214 CS delivering 216 babies between 31/5/2020 - 17/7/2020 for four local NHS Hospitals. The demographics of the patients mirrored the general obstetric population. 95.8% performed after 38 weeks gestation. 58.9% of patients the indication was previous CS delivery/deliveries. Parity ranged between 1-8. The average blood loss at CS was 388ml. One patient had a major postpartum haemorrhage, losing 1800ml with no serious sequelae. There were 216 babies delivered, with a mean weight of 3354 grams. Seven babies were admitted to the Neonatal Intensive Care Unit. One baby was transferred to Great Ormond Street Hospital due to a bowel obstruction. Enhanced recovery protocols enabled 90.7% of patients to be discharged on day 1, Inpatient stay ranged 1-3 days. All patients were swabbed for

COVID-19 on admission, diagnosing five asymptomatic positive cases. There were no maternal or neonatal complications during their delivery or postnatal period. *Conclusion:* In 2020, delivering healthcare, especially in London was challenged due to the COVID-19 pandemic. TPH played a role in supporting the NHS; providing a pathway for selected patients undergoing elective c-sections and freeing up capacity. This collaboration resulted in a strategy to responding to unprecedented challenges. The utilization of the logistics and relevant skill-base in the private sector for maternity and neonatal care, and close team working between NHS and TPH staff ensured safe effective care for these women and babies. Informal feedback showed high satisfaction from patients and all staff involved.

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61 Arabin pessary: 5 Years experience of a tertiary hospital

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Introduction: Preterm labor is the leading cause of perinatal morbidity and has a significant socioeconomic impact. Preterm labor can be classified as early (< 28 weeks), intermediate (28-32 weeks) and late (32-37 weeks). Risk factors associated with preterm labor include African women, smoking, previous late abortion and/or preterm labor, cervix interventions, multiple pregnancy, short cervix and urinary and/or vaginal infections. There are several therapeutic strategies: cervical cerclage, progesterone and Arabin pessary. *Methods:* Retrospective descriptive study based on analysis of data from women who had an Arabin pessary placed during the last 5 years (2016-2020) at Hospital Professor Doutor Fernando Fonseca (Lisbon, Portugal). The analyzed variables include previous history, data from current pregnancy and of the Arabin pessary placement and labor. Statistical analysis through Microsoft Excel. *Results:* In five years, there were 54 pessaries placed. The women had an average of 30 years old, 55% were nulliparous and 46% African women. In terms of previous history, 13% had late abortion and/or preterm labor, 13% had cervical interventions (including conization) and 7% smoked. The major indication for the placement of pessary was a short cervix and in 9% of the cases, were multiple pregnancies. The average gestational age of placement was 24 weeks and 41% had urinary and/or vaginal infections. Vaginal progesterone was used in 52%. The average labor gestational age was 35 weeks with 43% pre-term labor (26% early, 26% intermediate and 48% late) with most women entering in spontaneous labor. The majority had an eutocic delivery (49%), with a cesarian section rate of 17%. *Conclusions:* According to our results, an important part of the women had associated risk factors. Arabin pessary is an obstetric tool surrounded with controversy but might have a place in the management of preterm labor, especially in delaying early preterm labor.

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67 Clinico-morphological features of the uterine scar tissue after argon plasma coagulation

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Introduction: Uterine scar is the most frequent reason for cesarean section (CS). The course of the subsequent pregnancy, its outcome and the success of vaginal birth after CS is determined by the repair of the suture on the uterus. The aim of our study was to assess the myometrial wound healing in case of using argon plasma coagulation (APC) of myometrium in the area of the suture during the previous CS. *Methods:* Case-control study was conducted on 52 patients who had undergone repeat CS between January 2017 and November 2019. First group included 24 women who had previous CS with the use of APC. Second group – 28 women who had previous CS without using APC. Interval between CSs was 2-5 years. Pathomorphological study of scarred uterine scar tissue was performed. Immunohistochemical panel with CD68, Vimentin, α -smooth muscle actin (α -SMA) antibodies was performed. Scoring system is used to express the received data. Results are presented as Mean \pm SD. *Results:* In group II there were processes of disturbed regeneration with the replacement of smooth muscle tissue with connective and adipose tissue, muscle fibers were chaotically arranged with moderate inflammatory process. The intensity of α -SMA expression was significantly higher in group I (2.83 \pm 0.38 score) compared to group II (1.35 \pm 0.49) (p <0.001). The intensity of Vimentin expression was significantly lower in group I (1.16 \pm 0.38 score) compared to group II (2.5 \pm 0.51). The area of α -SMA-positive staining represented 63.2 \pm 7.6% in group I compared to 24.7 \pm 9.31% in group II. The expression level of CD68 in group I was 1.75 \pm 0.45, in group II 2.71 \pm 0.46 score (p <0.05). *Conclusions:* APC of myometrium in the area of suture increases the value of the reparative processes and promotes the formation of a morphologically complete scar, with the predominance of smooth muscle cells and minimal lymphoid infiltration.

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68 The effect of carbetocin and argon plasma coagulation on repeat c-section and uterine involution

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Introduction: High risks associated with repeat cesarean section (CS) are excessive bleeding, uterine atony, inflammatory complications. The aim of our study was to examine the efficacy of using carbetocin and argon plasma coagulation (APC) during repeat CS procedure for reducing operative time, blood loss and uterine involution period. *Methods:* Prospective cohort study was conducted on 140 patients who had undergone repeat CS between January 2018 and November 2020. Group I included 70 women who had repeat CS with the use of APC and administration of 100 mcg carbetocin after cutting the umbilical cord. Group II consisted of 70 women who had traditional CS using Stark's technique. Uterine measurements were carried out after CS on the 1st, 3rd and 10th day. Results are presented as Mean \pm SD. *Results:* Total operative time in group I was 38.05 \pm 3.52 min and in group II 48.65 \pm 8.02 min. Incision-to-delivery time in group I was 3.81 \pm 0.6 min, in group II 5.64 \pm 0.7 min. Time spent for uterine closure in first group was 15.45 \pm 2.77 min, in second – 20.32 \pm 2.02 min. Additional uterine