

An audit of anaesthetic practice and associated neonatal outcomes for category 1 caesarean sections during the initial wave of the COVID-19 pandemic

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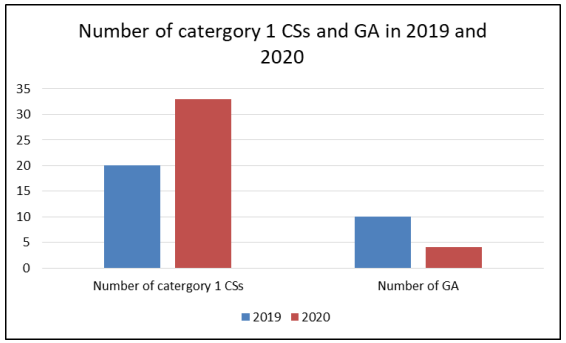
Introduction

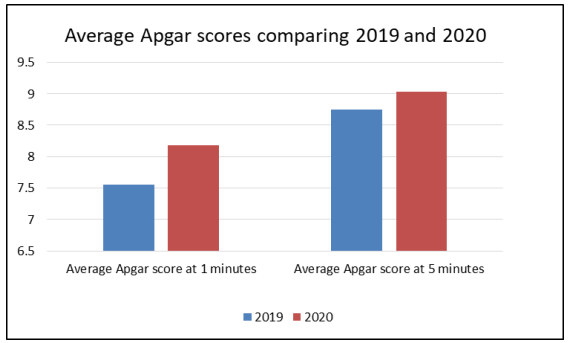
At the onset of the global pandemic of COVID- 19, significant changes were necessary to ensure the safe practice of obstetric anaesthesia. We carried out a retrospective comparative survey over the time period 1 April to 15 May 2020 and compared it to the same time period from 2019 in our tertiary centre (6800 deliveries/annum and a caesarean section (CS) rate of 34%). Our primary objective was to audit the change in anaesthetic practice and its impact on the decision to delivery interval (DDI) and neonatal outcomes for category 1 CSs.

Methods

Anaesthetic information for all category 1 CSs performed in these two interval periods was retrieved from hospital electronic records. Method of anaesthesia, total DDI and Apgar scores at 1 and 5 minutes were noted.

Results





Results

The key results are shown in the two previous graphs. During the 2020 period there were 33 category 1 CSs. Of these 29 had regional anaesthesia (RA) and 29 (88%) delivered within the 30 min DDI. During 2019 there were 20 category 1 CSs. Of these 10 were under a RA and 14 (70%) delivered within the 30 min DDI. The average DDI in 2020 was 23 minutes compared to 28.3 minutes in 2019.

Discussion

Though RA is the preferred choice of anaesthetic for all CS the arbitrary 30-minute rule has been adopted by professional bodies. This makes general anaesthesia (GA) the frequent choice of anaesthetic for category 1 CS due to its speed despite its inherent dangers. However recommendations during the pandemic advised RA for all except the most urgent cases to reduce the associated risks of GA.[1.] We have shown that the COVID-19 pandemic caused a significant change in practice away from general anaesthesia for category 1 CS. Regional anaesthesia accounted for 88% of cat 1 CS in 2020 compared to 50% in 2019. The factors affecting this are likely to include recommendations about avoiding GA in potential COVID-19 patients, increased on-site consultant presence and concerns the use of personal protective equipment in GA may cause delays. Despite this move away from GA there was an improvement seen in both the percentage of cases completed within the 30 min DDI and the Apgar scores for the two time periods. This raises the question of whether more category 1 CSs could be carried out with regional anaesthesia without any change in neonatal outcome.

Reference

1. Management of pregnant women with known or suspected COVID19, Obstetric Anaesthetists' Association (OAA), the Faculty of Intensive Care Medicine, the Intensive Care Society, the Association of Anaesthetists and the Royal College of Anaesthetists, published 16th March 2020, accessed from https://icmanaesthesiacovid-19.org