



Royal College of
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HIE INCIDENCE AND RISK FACTORS IN KING ABDULAZIZ NATIONAL GUARD HEALTH AFFAIRS

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Abstract:

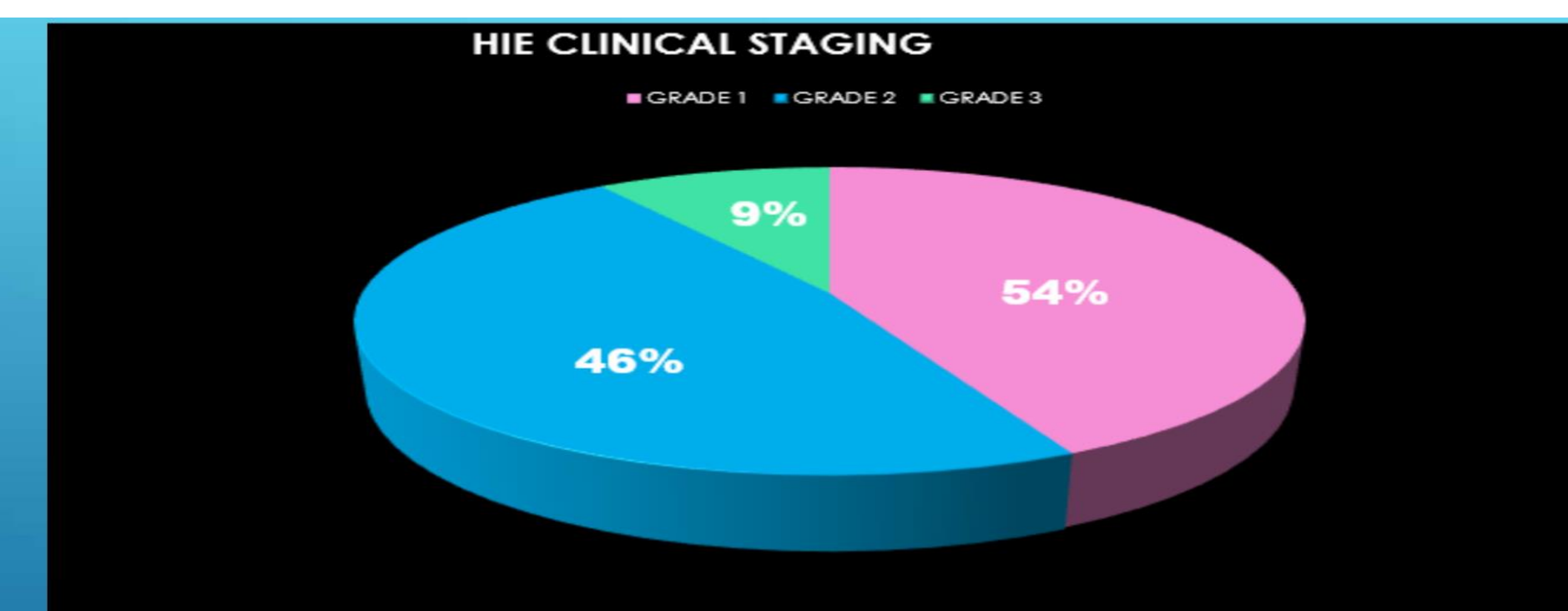
Objective: To find the incidence, early outcome and the associated risk factors of hypoxic ischemic encephalopathy (HIE) in King Abdulaziz Hospital NGHAI-AHSSA, Kingdom of Saudi Arabia (KSA) • Also, to find out whether any of these risk factors are preventable.

Methods:

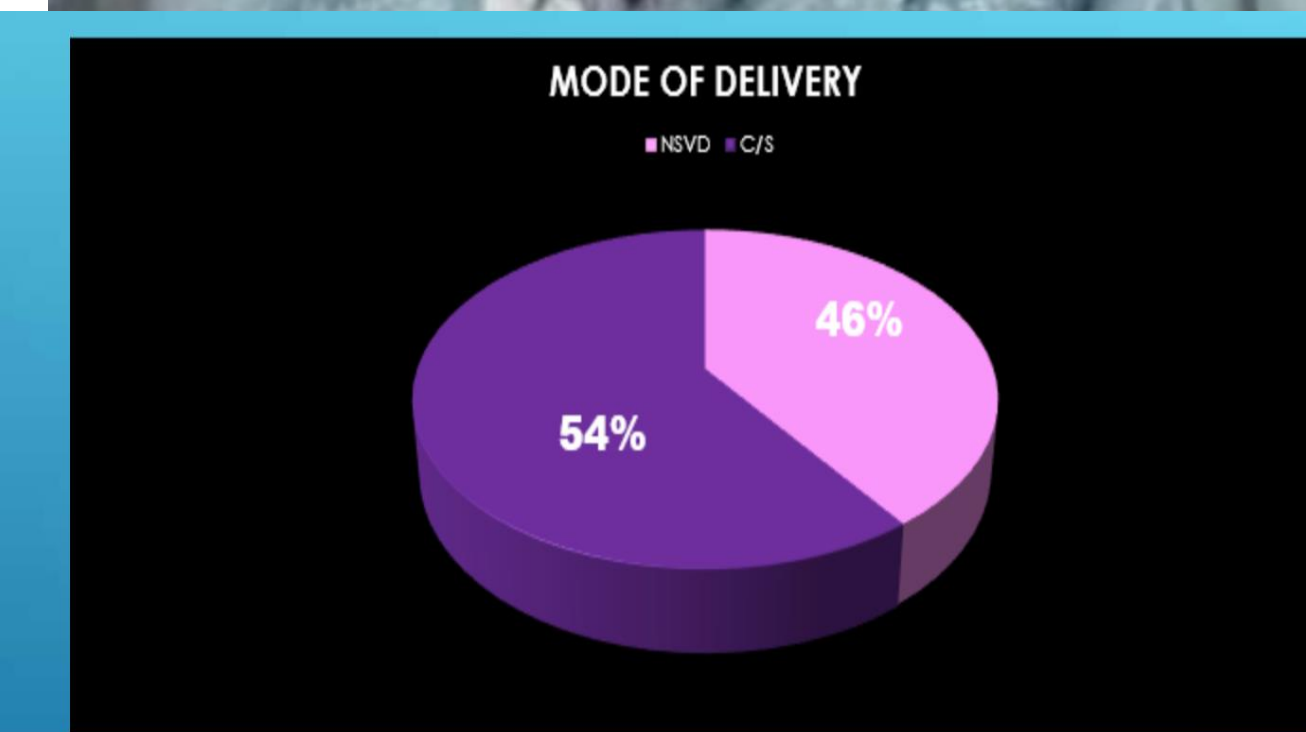
We conducted a retrospective case controlled study of Intrapartum HIE in King Abdulaziz Hospital, Alhasa, KSA over a two-year-period, from January 2019 to December 2020. All the inborn term babies without major congenital malformations that developed HIE were included in the study. A term baby born next to the index case was taken as a control for each case. Data was collected for possible risk factors. The incidence of risk factors in the 2 groups was analyzed and compared statistically.

Results: A total of 25 cases of HIE were recorded in the study period giving an incidence of 0.48 in 2019 cases per 100 term births and 0.93 cases per 100 term births. This incidence is lower compared to many developing countries and comparable to other centers.

Among the maternal factors, being a primigravida, , instrumental delivery . Similarly, the frequency of prolonged 2nd stage of labor, prolong decision delivery interval, delivery by emergency cesarean section (CS) or the use of instruments was significantly higher in the study group. Babies male sex were also at significantly higher risk.

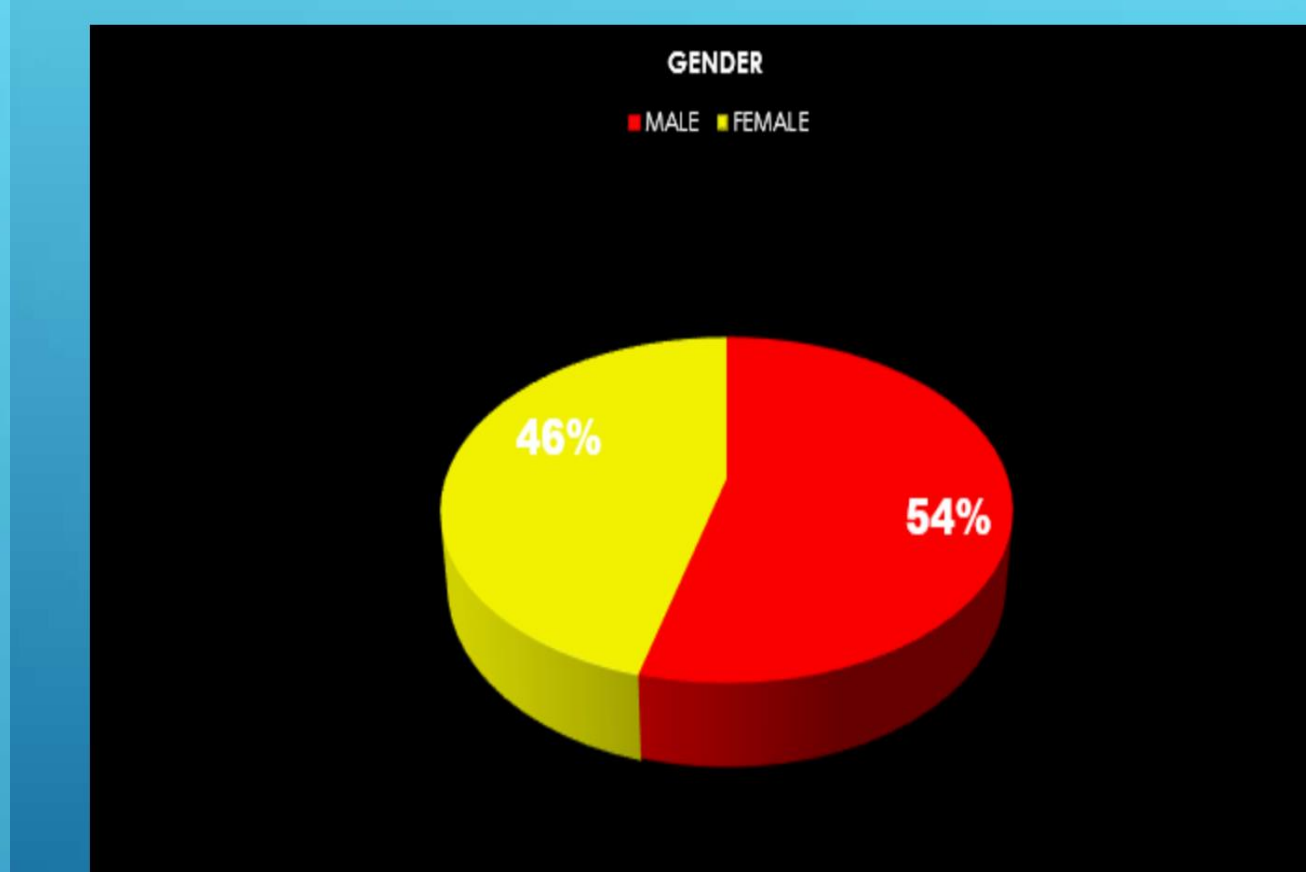


For Clinical Staging of HIE (Hypoxic Ischemic Encephalopathy) Grade 1 has total 9 babies, Grade 2 has 10 babies, Grade 3 has 2 babies.



TOTAL NUMBERS OF VAGINAL DELIVERIES ARE 10, 4 VENTOUSE DELIVERIES AND 6 NVD AND CESAREAN SECTION IS 15 IN TOTAL

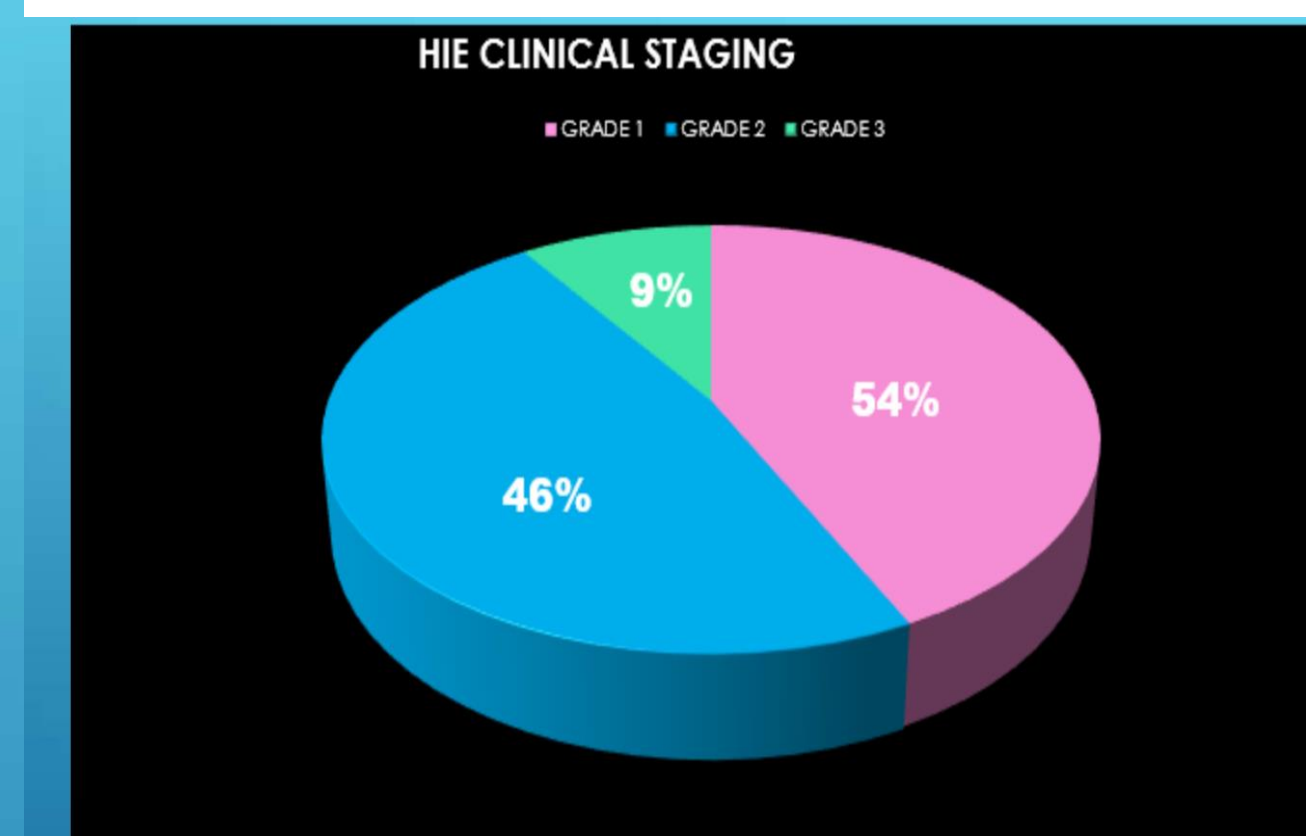
In summary, in 2019 the number of HIE in total is 7 and the percentage is 0.48%, while in 2020 the total number of HIE is 17 and the percentage is 0.93%.



Male babies have total number of 13 and are 54 %, while Female babies has 11 in total resulting to 46 %.

Conclusion:

The incidence of HIE and birth asphyxia reported in different studies varies widely. The incidence in our hospital is much more in 2020 than reported in 2019 studies . The important associated risk factors includes being a primigravida mother, lack of antenatal care, failure of ctg interpretation , prolonged 2nd stage of labor, delivery by use of instruments or emergency CS a. Improvement in antenatal care and intra-partum monitoring can decrease the incidence of HIE. The threshold for intervention in cases with fetal distress needs to be lower.



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