AWAKE SPINAL ANAESTHESIA IN NEWBORNS UNDERGOING PYLOROMYOTOMY. A PILOT STUDY

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BACKGROUND
General anaesthesia can be associated with high incidence of post-operative apnea in premature infants and newborns. Hypertrophic pyloric stenosis (HPS) is a relatively common gastrointestinal disorder so infants are considered to have a full stomach, causing projectile vomiting. Only a few publications describe avoidance of using spinal anaesthesia in infants undergoing surgery for treatment of HPS.

OBJECTIVE
Our aim was to assess the successful of spinal anaesthesia and absence of intra and post-operative complications after spinal block in premature, newborns and infants undergoing pyloromyotomy.

METHODS
Ten infants scheduled for urgent pyloromyotomy under awake spinal anaesthesia were studied. Haemodynamic and respiratory parameters were noted performing the spinal block, 5 min after the spinal, and every 10 min. during the surgery. The spinal block was performed using 0.5% isobaric bupivacaine (0.8 mg kg⁻¹). Midazolam sedation (0.05-0.1 mg kg⁻¹) i.v. was required to keep calm infants during surgery. Demographic and clinical data, cardiovascular parameters, any apnea episode were documented.

RESULTS
Awake spinal anaesthesia was achieved successfully in 100% of cases treated. No adverse events, no high spinal complication was reported. Intraoperative conversion to general anaesthesia was not necessary in any patient. No post-operative apnea, no gastric content aspiration were described.

CONCLUSIONS
Awake spinal anaesthesia is safe and effective for newborns undergoing pyloromyotomy. It was associated with absence of complications. This study proposes that the spinal anaesthesia could be an alternative option to general anaesthesia. Moreover spinal anaesthesia in newborns is not associated to post-operative apnea and vomiting episodes.