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Original Research Paper

Anaesthesiology

COMPARATIVE STUDY OF DIFFERENT DOSES OF OXYTOCIN ON PATIENT UNDERGOING EMERGENCY CAESAREAN SECTION

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ABSTRACT

INTRODUCTION: During Caesarean Section oxytocin as an uterotonic agent is being administered routinely which causes contraction of uterus and it also causes certain adverse affects on patients if not given in proper dose.This Double Blinded study was designed to evaluate the response of different doses of oxytocin when used as an uterotonic agent during CS.

Methods: 60 patients posted for emergency or elective Caesarean Section were divided into 2 groups of 30 each (Group G & Group S). Group G pts received 20 IU of oxytocin divided into 10IU IM & 10 IU IV, Group S pts received 10 IU of oxytocin 5 IM & 5 IV. They were randomly allocated to one of the groups by sealed envelope technique. All the pts were given 2 ml of 0.5% heavy Bupivacaine and were put on left lateral tilt. All the pts were preloaded with 1L of RL and no sedatives were used during the surgery. Vitals were noted prior to induction of pt and monitor containing BP, Chest leads, Sp02 was attached.

Results: In group G- out of 30 patients receiving 20 IU of Oxytocin, 21 patients developed following symptoms (p=0.27):

Conclusion: Oxytocin in its synthetic preparation contain Chlorbutanol as preservative which is the reason for its adverse affect when given in more than the prescribed doses, So oxytocin should be given in optimum dosage and if needed 20 IU should only be given to patients who are prone to develop post partum haemorrhage.

KEYWORDS : OXYTOCIN, CAESAREAN SECTION

INTRODUCTION

This prospective Double Blind study was designed to evaluate the response of different doses of oxytocin when used as an uterotonic agent during Caesarean Section. Oxytocin is a nona-peptide and neurohypophysial hormone that is made in mammals.

Oxytocin is normally produced in the hypothalamus and stored in the posterior pituitary gland. Oxytocin is used worldwide for its role in preventing and treating uterine Atony & PPH.

Some other uses of Oxytocin:

1) It's easy to get
2) A love potion that's built right in
3) Healing and pain relief
4) An antidepressant & Stress relief
5) Its what makes us human

MATERIAL AND METHOD

GROUP- A

- 1st Group P-Given usual dose of Oxytocin 20 IU divided into 10IU IM & 10IU IV.

GROUP -B

- 2nd Group V-Given 10 IU dose of Oxytocin 5IU IM & 5IU IV.

Group A	Group B
20 IU divided into 10 IV & 10 IM	10 IU divided into 5 IM & 5 IV

- All the pts were given 2 ml of 0.5% heavy Bupivacaine.
- Vitals were noted prior to induction of the patient.

GROUP- A

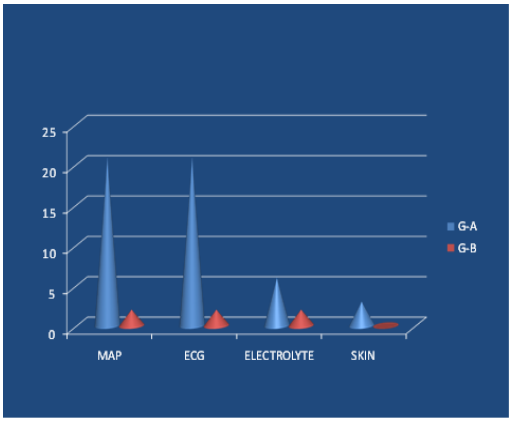
- In group A- 21 patients developed following symptoms:
- Cardiac changes Mean arterial pressure- Biphasic changes are seen with initial rise followed by decrease of mean arterial pressure.

ECG Changes- ECG shows ST-T depression associated with flushing, chest pain and shortness of breath.

- These changes occurred due to hypotension, tachycardia and coronary artery vasoconstriction.
- In 4 out of 21 patients hyponatremia was noted.
- Few reported skin irritation after IM injection but none of them were having severe anaphylaxis reaction.

GROUP- B

In Group B- only 2 out of 30 patients reported the above adverse symptoms.



RESULT

- In Gr – A 70% of patients developed the adverse symptoms
- In Gr – B only 5% of them developed the adverse symptoms.

DISCUSSION

- Oxytocin in its synthetic preparation contains Chlorbutanol as preservative which is the reason for its adverse affect when given in more than the prescribed doses.

CONCLUSION

The study showed that the dose needs to be reduced from 20 IU to 10 IU and if needed 20 IU should only be given to patients who are prone to develop post partum haemorrhage.

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