

ACTIVE MANAGEMENT OF THIRD STAGE OF LABOUR BY OXYTOCIN INSTILLATION IN THE UMBILICAL VEIN

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SUMMARY

Injection methylergonovine maleate (Methergin) is used routinely at the time of delivery of anterior shoulder of baby to facilitate third stage of labour. Uterine stimulants like oxytocin can be used to facilitate the separation of placenta and for curtailing the blood loss by providing efficient uterine contractility. In the present study oxytocin instillation into the umbilical vein was used to manage the third stage of labour. The method has been found to be simple, safe and effective and is of particular use in cases where methergin is not indicated or when methergin could not be given at proper time.

Introduction

As a routine practice in labour room, injection methergine (methylergonovine) is usually given intravenously at the time of delivery of anterior shoulder to facilitate the uterine contractions and expulsion of the placenta. The oxytocin saline instillation in the umbilical vein is a non-invasive, simple and a new method for the management of retained placenta (Golan, 1983). We have used this method for the routine management of third stage of labour and found it to be very effective, simple and safe for the early separation of the placenta and less amount of blood loss.

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Accepted for publication on 27-7-85.

Material and Methods

This study was conducted in the department of Obstetrics and Gynaecology, P.B.M. Hospital, Bikaner.

The number of cases studied were 100. Age of the patients studied varied from 18-36 years. The parity ranged from 1-7.

Out of these cases, 95 had normal delivery and 5 had forceps delivery.

Five units of oxytocin diluted with 10 ml normal saline (0.9% NaCL) was injected in the umbilical vein just after the delivery of the baby and signs of placental separation were observed. The duration of third stage was noted and the total blood loss was measured by the collection of the blood in an autoclaved receptacle kept close to the vulva of the patient after the delivery.

Observations

Out of 100 cases studied, in 92 (92%) cases, expulsion of the placenta occurred after few minutes of the oxytocin instillation. The injection expulsion interval varied from 32 seconds to 2 minutes and 10 seconds, the average being 1.77 minutes. The amount of blood loss varied from 10 ml to 60 ml, the average being 30 ml and the uterus contracted very well in all the cases. In 6 cases after waiting for 5 minutes further instillation of 5 units of oxytocin diluted in 10 ml of normal saline (0.9% NaCL) was done and placental separation took place after 2-3 minutes of injection, the average duration being 2.5 minutes after second injection. In these cases, the mean blood loss was 40 ml. In the remaining 2 cases although the placenta was separated 2 minutes after the oxytocin instillation, but the uterus had tendency to relax. So further supplementation with injection methergin 0.2 mg IV was done following which the uterus contracted well. The blood loss in these 2 cases was 90-100 ml. The post partum haemorrhage due to atonic uterus was not encountered in any case.

Discussion

In routine, injection methergin is given at the time of delivery of anterior shoulder to facilitate third stage of labour. Sometimes in a busy labour room with a limited number of staff members, or some other reason as in twin delivery, breech delivery, internal podalic version with breech extraction, it sometimes happens that injection methergin is not given at the very end of the second stage at proper time. As a result, in some cases, a rapid and disastrous alteration in uterine activity may occur. The ergonovine injection in rare occasions may produce considerable hypertension and also it is not suitable for the

cardiac patients. By using oxytocin instillation into the umbilical vein, the separation of the placenta is facilitated easily with minimum amount of blood loss. In a busy labour room the obstetrician who is conducting the delivery can keep the autoclaved syringe filled with oxytocin solution ready and administer immediately following the delivery without requiring the help of other staff members. The use of oxytocin instillation is not associated with such risks like hypertension and abnormal uterine activity.

The mechanism is that oxytocin injected into the umbilical vein reaches the placental bed in higher concentration. This stimulates the contraction of the uterine muscle as a result of which the placenta separates and is delivered (Golan, 1983).

Conclusion

Oxytocin instillation during the management of third stage of labour may be used with success due to following advantages:

1. It is simple, safer, non-invasive, inexpensive and easy method.
2. Blood loss is less.
3. Duration of third stage of labour is shortened and uterus contracts very well following its use.
4. No side effects were encountered.
5. It may be of use in cases of breech delivery, twin delivery, delivery following internal podalic version with breech extraction etc.

So the over all conclusion that can be drawn is that this method may be safely and effectively used during the management of third stage of labour without any adverse effects.

References

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