

USEFULNESS OF BUCCAL — DESAMINO OXYTOCIN IN THE ACTIVE MANAGEMENT OF LABOUR

ABHIJIT R. KHER • KAIZAD R. DAMANIA • MURARI S. NANAVATI
NAYANA A. DASTUR • SHIRISH N. DAFTARY

SUMMARY

A trial to study the usefulness of Buccal Desamino Oxytocin, to shorten the active phase of labour was carried out at the Nowrosjee Wadia Maternity Hospital, Bombay.

Buccal Oxytocin was found to reduce the duration of active phase of labour and increase the rate of cervical dilation, without causing any maternal or foetal morbidity amongst the patients studied.

Introduction

The basis of modern obstetrics has always been to shorten the duration of labour so as to prevent the complications of it being prolonged such as maternal exhaustion, intrauterine infections and foetal distress; which may occasionally need an operative intervention.

The role of oxytocin in augmentation of labour is already well known.

Buccal desamino oxytocin (Buctocin) is a synthetic compound structurally related to oxytocin. It acts through buccal route only and is claimed to be two times more potent than oxytocin with longer half life as a result of its relative resistance to enzyme oxytocinase. It is evenly absorbed through the buccal mucosa and

has even less vasopressor activity than oxytocin.

The aim this study was to find the role of Buccal desamino oxytocin in active management of labour, shortening the duration of active labour and study adverse effects.

Material and Methods

The study was carried out on two groups of normal primigravid women at term without any high risk factors and who were in spontaneous labour. Each group consisted of 30 patients. When a patient entered the active phase of labour (a cervical dilatation of 3 cm. and painful uterine contractions at frequency of at least 3 every 10 min.), a low rupture of membranes was performed if the membranes are still intact. At this juncture, each of the 30 patients in the study group

was administered one tablet of Buccal desamino oxytocin (Buctocin). Patients were advised to keep the tablet in the buccal pouch and allow it to dissolve on its own. The tablet was repeated every hourly till full dilatation of cervix. No drug was administered to the patients in the control group. Partograms were plotted for all the 60 patients, to estimate the duration of labour and the rate of cervical dilatation. The duration of second stage of labour was noted. Apgar scores of all the neonates were calculated.

Results

Mean Durations	Study Group (Given Tab. Buctocin)	Control Group
1. Active phase of labour	2.4 hrs.	4.7 hrs.
2. Second stage	2.5 min.	37 min.
3. Entire labour	8.2 hrs.	14.7 hrs.
Mean rate of cervical dilatation	4.1 cms/hr.	1.5 cms/hr.

The mean duration of active phase of labour was reduced to almost half in the study group (2.4 hrs.) as compared to the control group (4.7 hrs.)

Mean rate of cervical dilatation was much faster (4.1 cms/hr.) in study group as compared to control group (1.5 cms/hr.)

Mean duration of second stage was also reduced. It was 37 min. in the control group and 25 min. in the study group.

Mean duration of the entire labour was calculated and was found to be 8.2 hrs. in study group as against 14.4 hrs. in control group.

Apgar scores were not affected. No case of atonic postpartum haemorrhage was seen in either group of patients.

Discussion

Studies have been carried out using Buctocin for induction and acceleration of labour in patients with uterine inertia.

We have used Buctocin to accelerate labour in patients in the active phase, to cut it short as far as possible.

Using buccal oxytocin in dosage of 200U 1/2 hrly, Spence et al. found 9 cases of uterine hyperactivity and 6 cases of foetal distress amongst the 100 patient studied.

We used Buctocin of 50U given every 1 hourly; since on earlier pilot study revealed that giving Buctocin 1/2 hourly caused uterine hyperactivity. On giving it 1 hourly no incidence of hyperactivity was noted. This finding is also supported by the observation of Seitchik et al that the steady state achieved by any dose of oxytocin in the usual clinical range is reached in about 40 min., though the plasma half life is only 10 min.

To conclude, we found Buccal Oxytocin to be an effective and safe method to shorten the active phase of labour with the advantages of convenience to the patient, patient being ambulatory; greater acceptibility, ease of administration; avoidance of complications of intravenous route such as fever, rigors, phlebitis.

Buctocin to shorten labour, helps in preventing complications of prolonged labour such as maternal exhaustion, intra-uterine infections, foetal hypoxia and need for operative intervention and its consequent complications.

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