**Wellcome Film Project**

## Routine Use of Ergometrine in the Third Stage of Labour

**The Wellcome Foundation Limited, 1958.**

**Presented by Professor WC Nixon, Professor of Obstetrics and Gynaecology, University of London.**

**Produced by The Wellcome Film Unit in collaboration with University College Obstetric Hospital, London.**

**Colour**
**Duration: 00:07:24:33**

**00:00:00:00**

<**Opening credits**>

<**Nixon to camera**>

In 1935, Professor Chassar Moir introduced ergometrine into obstetrical practice. Up to that time, use had been made of the derivatives of the ergot alkaloids but it was Professor Chassar Moir and his collaborator, the late Dr HW Dudley, who were responsible for the isolation and introduction of the active principle which we know today as ergometrine.

The name ergometrine was suggested by Sir Henry Dale, metra being the Greek for uterus. The work of these men was carried out at University College Obstetric Hospital and it seems appropriate that a recommendation for the wider application for this drug should stem from that same source. It has been said that administration of ergometrine, prior to delivery of the placenta, increases the incidence of manual removal and that this, in turn, must increase demands on the obstetric flying squads.

Manual removal of the placenta is a simple and safe operation in the fit patient who has not had postpartum haemorrhage. Manual removal has fallen into ill-repute in the past because postpartum haemorrhage was inadequately treated. This operation was performed as a last resort on an exsanguinated patient and it was blood loss which was the factor for maternal mortality, rather than subsequent removal of the placenta.

<**Nixon over still images of papers given on the use of ergometrine**>

In an address given at the centenary celebrations of Queen's University, Kingston, Ontario in October 1954, Professor Chassar Moir quoted two reasonably large series of cases which contrasted the intravenous use of ergometrine with old-fashioned methods of management of the third stage of labour. These are the figures of Lister, working at Liverpool, and Martin and Dumoulin working at University College Obstetric Hospital. And it will be seen that with administration of ergometrine, the average increase in manual removal is less than 1%, and that this is associated with a reduction of postpartum haemorrhage from more than 14% to less than 1%.

<**Nixon to camera**>

From these figures it is difficult to see how the work of the flying squad might be increased, since it has been the experience both of University College Obstetric Hospital and other clinics, that the most common condition calling for treatment by the flying squad is atonic postpartum haemorrhage.

A further objection to routine use of ergometrine has been the possibility of an undiagnosed twin. That twins can remain undiagnosed up to the time of delivery is a challenge to those who practise antenatal care.

<**Nixon over still image of report into maternal deaths**>

A Ministry of Health report on Confidential Enquiries into Maternal Deaths in England and Wales during the period 1952-1954 shows that there are no less than 113

maternal deaths from postpartum haemorrhage. In cases of retained placenta and postpartum haemorrhage the assessors considered that 90% of deaths were avoidable.

<**Nixon to camera**>

It is an established clinical fact that a contracted uterus does not bleed whether it contains a retained placenta or not. The remaining arguments against routine use of ergometrine are mainly of a practical nature and can best be dispelled by a practical demonstration. Some slight additions to normal routine are necessary, but one midwife can easily handle both the delivery and the injection and in the normal case will never need more than one unqualified assistant.

**00:04:20:00**

<**Nixon over demonstration of the use of ergometrine in the third stage of labour**>

The delivery trolley will have been prepared in accordance with normal practice. The patient is progressing in the second stage of labour and pethidine has been administered as required. The midwife has adequate time at this stage to prepare the injection of ergometrine. The recommended dose is 0.5mg given intramuscularly. This should be drawn up into the syringe and the empty ampoule placed over the needle. In this way the ampoule identifies the content of the syringe and guards against any possible error.

The prepared syringe is placed in a position where it'll be immediately accessible during the delivery. There need be no further departure from normal routine until the head is safely delivered. At this point the ergometrine is administered intramuscularly, the injection being made into the upper, outer quadrant of the buttock. This site is chosen since it is easily accessible to the midwife and remote from the sciatic nerve. Delivery of the child may now be completed in the normal manner.

Ergometrine may be expected to promote contraction of the uterus about 4 minutes after intramuscular injection, thus expelling the placenta and completing the third stage of labour with minimal delay and blood loss.

The injection may be made equally easily with a patient in the left lateral position. In which case it may be found desirable to make use of an assistant to support the right leg.

<**Nixon to camera**>

As we have seen, administration of ergometrine adds very little to delivery routine beyond the preparation of another syringe – surely a small price to pay for a substantial reduction in maternal deaths from postpartum haemorrhage.

<**End credits**>