

operative deliveries were found more frequently in the high-risk cases. A better obstetric performance will only be achieved by better ante-natal care.

*Translated by Samil Pabyrn Foundation*

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## The outcome of operative delivery

by

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It has been shown that the incidence and type of operative delivery is directly related to the risk of the pregnancy (<sup>1</sup>).

The improvement in medical care and socio-economic conditions, the extension of social welfare measures have reduced the incidence of particularly high-risk pregnancies and thus of major obstetric procedures.

On the other hand, the present safety of cesarean section, with a very favourable maternal and foetal outcome (<sup>2</sup>), leads us to re-examine the importance of traditional intervention by the vaginal route; indeed, we may even question whether it is really in the interest of the foetus. However, this «decadence» of classical operative obstetrics may lead to an unjustified abuse of cesarean section, which would thus become the convenient and easy solution of the obstetrician with little training.

To resolve this problem we must consider that obstetric care aims not only at delivering a live newborn, but also one free of neurological and physical damage. Since the maternal outcome is generally favourable, the value of the obstetric procedure selected should be assessed on the basis of the foetal outcome.

#### MATERIALS AND METHODS

To study the validity of an obstetric approach we carried out a retrospective analysis of 2277 cases of labour at the Second University Clinic in Verona from

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23-2-70 (beginning) to 31-7-73; 345 obstetric procedures were carried out during this period, with an incidence of 15.15%.

At one time obstetric intervention was virtually the only emergency solution in the delivery room; at present, in agreement with the prophylactic aim of obstetrics, interventions is often planned early in the pregnancy, on the basis of our wider knowledge of obstetrics pathology and the associated foetal risk.

The patients are carefully prepared for the « programmed » intervention, which is carried out with pre-arranged intensive neonatal care, during the daytime hours when all services are fully active, and thus presumably leads to more favourable prognosis than that of emergency procedures.

In other cases the intervention follows rather than precedes pathological events and resolves situations of varying seriousness which cannot always be foreseen even with our present diagnostic means. A number of such interventions is carried out under emergency conditions and therefore under conditions which are not optimal.

The choice of intervention depends on the circumstances. Indications for intervention before labour are: diabetes mellitus, toxæmia, placental insufficiency, elderly primigravida, Rh isoimmunization, tumor previa, cephalopelvic disproportion, preceding hysterotomy of the body of the uterus (or of its lower segment, with inadequate technique). For these indications the only valid interventions is cesarean section.

Indications for interventions during labour are: maternal or foetal complications such as cardiopathy and distocia in the course of trial labour. In these cases, and according to circumstances, all obstetric interventions have a part to play.

Indications for emergency intervention are: unexpected and often unforeseeable complications which require *immediate* obstetric intervention, such as acute foetal distress, prolapsed cord, placenta previa, abruptio placentae, threatened rupture of the uterus, eclampsia. These often are patients who arrive at the hospital unexpectedly with this dramatic pathology. These indications exclude the use of the vacuum extractor, which is not a rapid obstetrical measure, leaving cesarean section, forceps and extraction following version as possibilities. The last mentioned intervention is rarely used today.

Tables 1, 2, and 3 show the incidence of intervention in the three groups of indications.

Table 1. *Incidence of interventions before labour.*

INDICATIONS	Cesarean No.	%
Diabetes mellitus	2	2.56
Elderly primigravida	12	15.38
Tumor Previa	3	3.84
Rh isoimmunization	2	2.56
Previous cesarean section	26	33.33
Cephalopelvic disproportion	16	20.51
Placental insufficiency	1	1.28
Toxiemia	11	14.10
Other indications	5	6.41
Total	78	100

Table 2. *Incidence of interventions during labour.*

INDICATIONS	Cesarean No.	%	Forceps		Vacuum	
			No.	%	No.	%
Cardiopathies	0	0	0	0	2	2.38
Dynamic dystocia	35	45.45	10	50	53	63.10
Mechanical dystocia	39	50.64	10	50	20	23.80
Other indications	3	3.91	0	0	9	10.72
Total	77	100	20	100	84	100

Table 3. *Incidence of interventions in emergency*

INDICATIONS	Cesarean No.	%	Forceps	
			No.	%
Threatened rupture of the uterus	18	23.37	0	0
Prolapsed cord	6	7.80	0	0
Acute foetal distress	30	38.96	9	100
Placenta previa	10	12.99	0	0
Abruptio placentae	11	14.28	0	0
Eclampsia	2	2.60	0	0
Total	77	100	9	100

An examination of these tables reveals the heavy preference given to cesarean section, not only before labour, but also as an emergency intervention. Forceps were rarely used in emergency, but more frequently to resolve distocia in situations where cesarean section was not possible because of deep engagement of the presenting part, and where the vacuum extractor was inadequate for overcoming the obstacle. As was to be expected, the latter was only for minor distocia.

The results obtained by these obstetric measures are discussed below.

#### IMMEDIATE PREGNANCY OUTCOME

Overall perinatal deaths, calculated according to the W.H.O., were 12.29 per 1000 deliveries; antepartum deaths were 4.39 per 1000 deliveries; intrapartum and neonatal deaths after spontaneous vaginal delivery were 5.17 per 1000 deliveries; the intrapartum and neonatal deaths after operative delivery were 22.47 per 1000 deliveries, i.e. 4.32 times higher than those of non-operative delivery (Table 4).

Mortality after cesarean section is also markedly higher because this procedure is practised in the more serious cases or those which would otherwise come to an unfavourable conclusion. These mortality figures are comparables to those reported by other investigators (<sup>2, 3</sup>).

The foetal outcome may vary, independently of the type of procedure in accordance with the conditions under which the intervention is carried out. Tables 5, 6, and 7 show the outcomes in the three groups of indications.

Table 4. Overall perinatal deaths

ANTE-PARTUM DEATHS	10 = 4.39%
Erithroblastosis	1
Congenital Malformations	1
Placental Insufficiency	1
Toxiemia	3
Maternal trauma	1
Cause undetermined	3
DEATHS AFTER SPONTANEOUS VAGINAL DELIVERY	10 = 5.17%
Intra-partum deaths	0
Neonatal deaths	10
immediate (24 hr or less)	7
late (over 24 hr)	3
DEATHS AFTER OPERATIVE VAGINAL DELIVERY	1 = 8.84%
Intra-partum deaths	0
Neonatal deaths	1
immediate	1
late	0
DEATHS AFTER CESAREAN SECTION	7 = 30.1%
Intra-partum deaths	1
Neonatal deaths	6
immediate	2
late	4
PERINATAL DEATHS (TOTAL)	28 = 12.29%

Table 5. The foetal outcome of cesarean section

INDICATIONS	Intra-partum deaths No.	Neonatal deaths No.	Total deaths No.
Before labour	0	2	2
During labour	0	0	0
In emergency	1	4	5
Total	1	6	7

Table 6. The foetal outcome of forceps

INDICATIONS	Intra-partum deaths No.	Neonatal deaths No.	Total deaths No.
During delivery	0	0	0
In emergency	0	1	1
Total	0	1	1

Table 7. *The foetal outcome of vacuum extractor*

INDICATIONS	Intra-partum deaths No.	Neonatal deaths No.	Total deaths No.
During delivery	0	0	0

#### MATERNAL COMPLICATIONS OF OPERATIVE DELIVERY

There was no mortality in 345 operations. Although no exact list was made in view of the minor nature of the pathological events, it is undeniable that any obstetric intervention may involve increased maternal morbidity. In our patient group we observed a greater frequency of minor complications, such as pelvic hematoma, bronchopneumonia, urinary infection and anaemia in spontaneous birth, in a percentage of cases of no statistical significance. Only a prolongation of the hospitalization period was observed in each case, but no sequelae. In particular, we observed no anaesthetic complications, serious haemorrhage, urethral or bladder lesions, sepsis, peritonitis or intestinal adhesions. Thrombosis of the lower limbs has been found to occur more often after obstetric interventions, and particularly after cesarean section<sup>(2)</sup>; our findings did not allow us to confirm this definitively. Our final puerperal follow-up, which only involved some 30% of the patients, appeared to exclude complications of some importance, such as fistulae. The symptomatology found was always polymorphous, and did not allow a clear classification.

#### DISCUSSION AND CONCLUSION

The analysis of 2277 consecutive cases of labour leaves one impressed with the high incidence of obstetric interventions, which amount to 15.15%; 10.18% represent cesarean sections, 1.27% the use of forceps and 3.69% the use of the vacuum extractor. This is due to the particular type of pregnancy which is found in the maternity ward of a University Clinic; many of these are high-risk cases<sup>(1)</sup>.

A third of cesarean sections was carried out before labour, for prophylactic purposes. When patients are admitted to the hospital before labour, the more detailed diagnosis leads to a greater recourse to these procedures. This is especially true of diabetes mellitus, Rh isoimmunization, placental insufficiency, hypertension and late toxemia of pregnancy. The evaluation of placental sufficiency with the application of laboratory tests and the assessment of foetal distress with pH, acid-base balance, amniocentesis and auscultation or monitoring of the foetal heart rate provides reliable indications which help to avoid unnecessary measures or those carried out under dramatic conditions. In this way a good 75% of the interventions were carried out under almost optimal conditions, with adequate preparation, and with the patients generally fasting. We thus avoid foetal injury due to delay in diagnostic procedures and operative delivery carried out too late.

Nevertheless, the greater foetal risk which is generally the cause of the intervention has led to a high intra-partum and neonatal mortality, especially after emergency cesarean section performed because of severe foetal distress. Thus, even cesarean section does not resolve all problems in obstetrics; the prophylactic aim of obstetrics, has not yet been fully met. More careful observation

during pregnancy is therefore necessary in order to eliminate the serious foetal consequences which emergency obstetrical interventions cannot avoid, even if they are correctly carried out.

### SUMMARY

The authors carried out a detailed analysis of 345 obstetric interventions in a group of 2277 deliveries. The strong emphasis on prophylactic measures led to a high percentage of cesarean sections. Only one fourth of the obstetric interventions was carried out under emergency conditions. More extensive observation during pregnancy and delivery would eliminate many foetal deaths which even obstetrical procedures cannot avoid.

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## **The pathological and clinical significance of high degree cervical dysplasia: an inquiry on 235 cases**

by

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The present evaluation of the clinical and pathological significance of high degree cervical dysplasia is based on colposcopic, cytological and, where indicated, histological examination of 52,843 patients, either hospitalized or out-patients of the Istituto di Clinica Ostetrica e Ginecologica of the University of Padua from the 1st March 1964 to the 31st December 1970.

We assessed as dysplastic all changes of differentiation of the squamous epithelial lining of the uterine cervix other than carcinomas *in situ*. These variations may be high degree or low degree; these terms are to be preferred to suspected or non-suspected dysplasia. In fact they are confined to describing the histological appearance of the lesion without expressing any opinion regarding prognosis<sup>(1)</sup>.

High degree dysplasia is a rare lesion. We saw only 235 cases out of 52,843 patients examined. The incidence is therefore of the order of 0.44%.

The age at which high degree dysplasia of the cervix is most often observed is between 35 and 40 years. The age distribution of the 235 consecutive cases studied by us is given in Fig. 1.

The cause of high degree cervical dysplasia is not known. There are, however,

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