

Results of the Implementation of the Internal Version and Great Pelvic Extraction for Delivery of the Second Twin in Transverse Position

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Abstract

At the present time, is still controversial the best way to attend the birth in the case of the second twin in transverse position, with some authors favouring a surgical option and others an internal version and vaginal pelvic extraction (VIGEP). We analyzed the fetal status evaluated through Apgar Score between second twin delivered by VIGEP and second twin delivered by abdominal caesarean section. The results of this study are consistent with the position that unless highly critical situations, the realization of a VIGEP for the extraction of the second twin in transverse position allows to obtain a proper neonatal outcome. In our series, the Apgar Score for the children delivered by VIGEP did not statistically differ from the Apgar Score of children delivered by Caesarean Section.

Keywords: Twin Pregnancy; Way to Delivery of Second Twin; C Section

Introduction

At the present time, is still controversial the best way to attend the birth in the case of the second twin in transverse position, with some authors favouring a surgical option and others an internal version and vaginal pelvic extraction (VIGEP). Kurzel., *et al.* [1] showed that 52% of caesarean sections in 541 twins were indicated by alterations in the presentation of the second twin and technical impossibility of performing a VIGEP. Smith., *et al.* [2], observed an increase in the incidence of caesarean section associated with external version of the second twin, compared with pelvic extraction, and that the VIGEP, could be the indicated way of birth for the second twin in transverse situation with greater than 1500g of estimated weight. Mauldin., *et al.* [3] performed a cost analysis of the modes of attending the second twin in transverse situation. Maternal and neonatal costs were significantly lower in the Group delivered by VIGEP. Although maternal morbidity was similar in the different groups, the duration of hospitalization was clearly lower in the case of VIGEP. Children born by VIGEP, had significantly less incidences of lung disease and neonatal infectious disease than other groups. These authors, when clinical observations were associated with hospital costs, concluded that the VIGEP of the second twin in transverse, presented as a more logical care strategy.

On the other hand, the commitment to reduce the incidence caesarean rate, implies that efforts should be made in all areas where surgery can be avoided without affecting the perinatal outcome, and the assistance of the second twin in transverse situation, seems to be one of these areas.

Objective

Analyze fetal status evaluated through Apgar Score between second twin delivered by VIGEP and second twin delivered by abdominal caesarean section.

Material and Methods

The population studied, consists of a series of 184 cases of patients with twin pregnancy assisted in the Ramón Sardá Maternity between January 1994 and January 1998. The study population was divided into three groups, depending on the way of birth. One group was made up of 91 cases of twin pregnancy whose birth occurred spontaneously, with the first fetus in cephalic presentation. Another group, consisted of 90 cases in which the way of delivery of the second twin was by Caesarean section. The third group consisted of 12 cases in which the way of delivery of the second twin was through VIGEP.

The Group 1 (fetus who were born by spontaneous delivery in cephalic presentation), was used as a control of the other groups. The state of the newborn, was evaluated through Apgar Score. The average weight of the VIGEP group was 2499 + - 525 g and the average weight of the caesarean group was 2380 + - 494g.

Results were statistically evaluated using the Student Test.

Results

The first comparison is between the fetus 1-vaginal delivery group and the Group 2-VIGEP fetus. The first minute Apgar Score was 8.31 +-1.81 in the first case and 6.16 +-2.36 for the second (T Student P < 0.0001). The fifth minute Apgar Score was 9.53 +-1.61 for the first group and 9.00 +-1.04 for the second (T Student P < 0.003).

The second comparison is between the Group 2-VIGEP fetus and the fetus 2-caesarean section group. The Apgar Score at first minute in the first group was 6.16 +-2.36 and the second group 8.13 +-1.85 (Student T P = 0.224). The fifth minute Apgar was 9.00 +-1.04 for the first group and 9.50 +-1.51 for the second (Student T P = 0.686).

The third comparison is between the fetus 2-caesarean section and the fetus 1-vaginal delivery group. The Apgar Score at first minute in the first group was 8.13 +-1.85 and in the second 8.31 +-1.81 (Student T P = 0.511). The fifth minute Apgar Score was 9.50 +-1.51 in the first group and in the second 9.53 +-1.61 (Student T P = 0.898).

Apgar	Fetus 1 - birth (91)	2 VIGEP fetus (12)	P (Student)
Minute	8.31 +-1.81	6.16 +-2.36	< 0.0001
Fifth	9.53 +-1.61	9.00 +-1.04	< 0.003
Apgar	2 VIGEP fetus (12)	Fetus 2 - Caesarea (90)	P (Student)
Minute	6.16 +-2.36	8.13 +-1.85	= 0.224
Fifth	9.00 +-1.04	9.50 +-1.51	= 0.686
Apgar	Fetus 2 c-section (90)	Fetus 1 - birth (91)	P (Student)
Minute	8.13 +-1.85	8.31 +-1.81	= 0.511
Fifth	9.50 +-1.51	9.53 +-1.61	= 0.898

Table: Comparisons between different forms of birth.

Discussion

In recent times, we have seen a tendency to assist the births of twin pregnancies in particular way. It is achieved by the vaginal birth of the first fetus, but the birth of the second one has been completed through the abdominal way. This C-section is not always fully justified and is often only to avoid an obstetric maneuver as the VIGEP.

Alexander, *et al.* [4] claim that neither intrauterine manipulation of the second twin nor the elapsed time between the birth of the first and second twin pregnancy, increases the risk of endometritis postpartum and neonatal sepsis. Dufour, *et al.* [5] say that the VIGEP is the only alternative to caesarean section, allowing the rapid birth of the second twin in transverse. The maternal prognosis is good and the newborn too if contraindications are respected. This same group [6] suggests that the use of nitroglycerin to induce uterine relaxation together with epidural analgesia, avoid general anesthesia and makes easier the realization of a VIGEP.

More recently, a 2014 Practice Bulletin from ACOG said that women with uncomplicated dichorionic-diamniotic twin gestations can undergo to vaginal delivery at 38 weeks of gestational age [9]. The same Bulletin state that twin pregnancy without complications associated is not in itself an indication of cesarean section. Women with diamniotic twin pregnancies with the first fetus is presented in cephalic mode, are candidates for vaginal delivery [10].

Diamniotic twin pregnancies of more than 32 weeks of gestational age with presenting fetus in vertex, are candidates for vaginal delivery regardless the situation of the second twin [11].

However, women undergoing a trial of labor in twin pregnancies, could present some complications associated to vaginal delivery, mainly those associated with hemorrhage [12].

Asztalos, *et al.* [13] said that a policy of planned cesarean section had not benefit for the newborns compared with a policy of planned vaginal delivery in twins at more than 32 weeks of gestational age without complications and with the first fetus in vertex.

Vaginal delivery of twins is associated with less neonatal morbidity and mortality than cesarean delivery, and should be the birth method of choice when the first twin has a cephalic presentation, according the MacReady Norra study [8].

The results of this study are consistent with the position that unless highly critical situations, the realization of a VIGEP for the extraction of the second twin in transverse position allows to obtain a proper neonatal outcome. In our series, the Apgar Score for the children delivered by VIGEP did not statistically differ from the Apgar Score of children delivered by Caesarean [8].

Finally, the conclusions of the Cochrane reviewers [7] conclude that the Cesarean for the second twin which is not in cephalic presentation, is associated with an increase in maternal febrile morbidity and an improved neonatal outcome, has not been demonstrated. This policy should not be adopted except in the context of controlled studies.

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