Kristeller’s Maneuver Does Anyone Teach this Grasp? is there a “Gray Area”?

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Introduction

Kristeller’s maneuver (KM) was described in 1867 as an obstetric maneuver based on the gentle compression of the uterine fundus at the time of birth of the head and shoulders of the fetus. In the textbook from excellent German Obstetrical School of Prof. Pschyrembel it is described as one of the two tricks accelerating the birth of a fetal head[1]. “It is not unusual for the head to pierce. The prolonged glide of the head is a great danger for the child. It may depend on the fact that the part contractions are suddenly weakened ... In (this) case, a non-contraction urge is recommended. If this does not give the desired effect, one of the following two grips is used ...:

a. Rittgen Grip - Grip Through the Perineal Crotch: one hand lies like in the protection of the crotch on the already visible part of the head, the other hand moves on the rear crotch, looking for a well-known chin that is already noticeable... Through a strong pressure on the chin, the head is slowly pushed out of the channel of the soft parts. In this case, it is recommended to simultaneously perform the assistance of a person assisting in:

b. Kristeller’s Grip (Squeezing the Fetus): the helping person stands on the one hand giving birth and waits for contraction or rubs the bottom of the womb carefully trying to trigger it. Then one or both hands cover the bottom of the uterus and exerts a slow increasing pressure towards the axis of the pelvis. If this does not work, an extensive episiotomy should be performed quickly. If, in this way, the head is also not born from the crotch, we have two methods of proceeding: birth in the speculum and in vain the obstetric course. Both of these methods, especially the birth in the sight glass, made gently and skillfully, are less harmful for the mother and the child than the much more brutal fisticuffs.”

Due to the high controversy regarding the benefits and harmfulness of the use of this method in newer textbooks for doctors and students, this topic has been either stripped down or completely omitted. In the 21 edition of “Williams Obstetrics” McGraw-Hill the only described catch for the birth of the head of the fetus is Rittgen maneuver (1855) [2]. In the above publication, the slogans: Kristeller Maneuver or used in Anglo-Saxon denominations: Fundal pressure - no uterine compression has been reported at all. Similarly, in the latest publication edited by Prof. G. H. Bręborowicz “Obstetrics” there is no description of this maneuver [3]. In the book Prof. Troszyński this procedure is defined as “a particularly violent muck”[4]. In Polish-language press reports, we will meet this term much more often, especially in journalistic reports. In this context, it seems that the official statement was presented by the National Consultant for Gynecology and Obstetrics.

S Radowicki. “It follows from international agreements that it is a procedure that is dangerous for the patient’s life and health. There are no situations in which it can be used. In difficult situations, the solution is a cesarean section - explained in the interview with portal rynkzdrowia.pl, prof. Radowicki. On the other hand, the question remains whether the cesarean section is always a possible solution. It seems that in Poland the situation is sealed. The treatment is prohibited. However, in 2008, an article by Dr E Waszczyński appeared in the pages of Polish Gynecology, namely: “Kristeller’s Treatment - Expresion Fetus, its genesis and contemporary application” [5]. The author emphasizes the differences between brutal oppression of the uterine fundus, neglect and ignorance and conduct for the welfare of the obstetric profession. The originator of this method is intended: “its dissemination should not be to the detriment of unpredictable circumstances or due to its improper use.” Due to the media noise associated with attacks on the environment of obstetricians-gynecologists, this article, unfortunately, remained unnoticed.

And what is the situation of using this method in the world? The above shows that American and Polish textbooks do not discuss this method. In many European countries this maneuver is forbidden, for
example: Great Britain, Germany, Switzerland, Austria, France, the Netherlands. However, international publications are still appearing assessing the effectiveness and risk of Kristeller maneuver. In 2008, a very interesting Croatian-German work was published, discussing the results of the use of MK in 7 patients [6]. The conclusions drawn included a reminder that midwifery is a field of medicine with high risk and one should be particularly critical in applying this method. However, complications were observed only in one newborn, which was associated with excessive pressure. In the above work, the indications and contraindications for the maneuver were included in detail. It is allowed to use MK in the case of:

a. Acute fetal hypoxia visible in the pathological CTG record in the presence of the fetal head in the uterus,

b. Assists with midwifery ticks or in vain of thrust,

c. Assist at the end of the second stage of delivery under epidural anesthesia,

d. Help with the advancement of the head at pelvic delivery using the Bracht method and

e. Assisted during cesarean section.

Contraindications to the procedure occur in: shoulder dystocia, the presence of the placenta in the uterine bottom, physiological delivery after cesarean section and the lack of complete dilatation and lack of advancement of the head in the birth canal. An obvious summary of the authors was the recommendation to carry out more prospective clinical trials on the potential benefits and risks of using KM. In 2017 in the Cochrane database an updated review of research on “Fundal pressure during the second stage of the delivery” was published [7]. Five trials (3057 women) compared manual fundal pressure versus no fundal pressure. Four trials (891 women) compared fundal pressure by means of an inflatable belt versus no fundal pressure.

Manual fundal pressure was not associated with changes in: spontaneous vaginal birth within a specified time, caesarean births, operative birth, duration of second stage, low arterial cord pH in newborn babies or Apgar scores lower than seven at five minutes. More women who received manual fundal pressure had cervical tears than in the control group. No neonatal deaths occurred in either of the two studies reporting this outcome. No trial reported the outcome severe maternal morbidity or death. The authors conclusion was that there is insufficient evidence to draw conclusions on the beneficial or harmful effects of fundal pressure, either manually or by inflatable belt. Fundal pressure by an inflatable belt during the second stage of labour might shorten duration of second stage for nulliparous women, and lower rates of operative birth. However, existing studies were small and their generalizability is uncertain. There was insufficient evidence regarding safety for the baby.

Recent months bring a lot of relevant information about the use of KM in maternity care all over the world.

In the Cuerva study from 2015, maternal ultrasound methods were used to determine objective indications for the use of MK based on measurement of the degree of progression (angle of progression) of the fetal head vs internal obstetrics [8]. In the presented results, no ultrasound criteria were defined that corresponded to the obstetrical experience while performing KM. In addition, no differences were found between the group of 36/52 patients (69.2%) and the control group on obstetric outcomes: delivery, crotch incision, perineal rupture, bleeding, Apgar score and umbilical cord blood pH. The results of the work also presented in 2014, edited by Acmaz, compared large groups of patients in whom Kristeller maneuver was performed [9]. In the study group (145 maternal), significantly more frequent perineal and cervical trauma was found compared to the control group (140 women). There were no differences in neonatal results between the examined patients.

**Summarizing**

a. We are still and always will be under a big public pressure

b. There is no possibility to choose a commonly accepted method of delivery in the final phase of excretion, because obstetric forceps or vacuum removal are banned or not done (lack of training of young doctors) and caesarean section is not always possible (lower uterine and cervical trauma at the draining of the head during cc)

c. Experience of obstetrician-gynecologist, cooperation with the midwife and in particular with the couple is the most important

d. You can never predict unpredictable ...

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