RESULTS OF MULTICENTER STUDIES AND SURVEYS

Differences in the views of obstetricians-gynecologists and intensivists based on the survey “Provision of medical care to patients with stillbirth”. Original article

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Abstract

Introduction. The Russian Federation’s stillbirth rate is almost twice that of the United States and Europe, while domestic treatment protocols are still lacking.

Objectives. To analyze the results of a survey of obstetricians-gynecologists and intensivists on the problems of providing medical care to patients with stillbirth.

Materials and methods. We have developed a questionnaire, which consisted of 23 questions in Russian. A total of 369 Russian-speaking doctors, intensivists and obstetricians-gynecologists took part in the survey.

Results. The need to turn off the mother’s consciousness at the time of giving birth to a dead fetus caused great disagreement between the related specialists (p = 0.0001). 56% of intensivists and 35% of obstetricians-gynecologists were in favor of turning off the mother’s consciousness. According to 23% of obstetricians-gynecologists and only 9% of intensivists, visual and tactile contact of a mother and her dead fetus has a positive impact on the psychoemotional state of the woman (p = 0.002). Respondents from both specialties preferred epidural analgesia in more than half of the cases.

Conclusions. A list of issues for which the greatest differences in ratings were obtained has been identified, which will further help to identify priority issues for discussion and points of application for creating agreed documents on the best management of pregnant women with stillbirth.

Keywords: stillbirth, pregnant women, labor pain, parturition, fetus, postpartum period, surveys, questionnaires

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**Introduction**

According to the Ministry of Healthcare of the Russian Federation, over the last 15 years the stillbirth rate (ICD-10 codes: Q00-Q99, P05, P08, P20, P35, P37, P39, P50, P52, P55, P56, P60, P61, P70, P75, P77, P83, P95) has been quite stable: 2005 — 5.68, 2010 — 4.62, 2015 — 5.87, 2018 — 5.51 per 1000 babies born alive and dead [1]. Whereby death before parturition was observed in 89 % of cases [2]. According to the Russian Federation’s stillbirth rate is practically twice as high as that of the USA, there aren’t any Russian clinical guidelines. Since medical assistance to patients with stillbirth includes anaesthesia, it is necessary to develop agreed interdisciplinary documents. This study was initiated to determine the degree of consensus on this issue among the experts in obstetrics and gynecology, anaesthesiology, and resuscitation. This work was supported by the Russian Obstetrical Anesthesiologists and Intensivists Association (ROAIA).

The **Objective of this study** was to analyze the results of a survey of obstetricians-gynecologists and intensivists.

**Materials and Methods**

We have developed a questionnaire, which consisted of 23 questions in Russian. It was reviewed by the Research Committee of ROAIA and tested to assess the understanding of the target audience in the cohort of 20 intensivists and 20 obstetricians-gynecologists. We have considered all the received comments and proposals. The final survey contained the following questions: specialty and length of service, sex, their region of residence, experience in helping patients with stillbirth, the difficulty of communication with such patients, attitude to deep sedation of a mother giving birth to a dead fetus, opinion on the impact of contact of the mother and her dead fetus on the woman’s mental status, opinion on the best method of stillbirth analgesia, implementation of a patient’s desires during labour, the attitude of medical personnel to the tactics of managing stillbirths in their medical institution, postpartum period problems and determining the conditions of stay for patients with stillbirth, provision of psychological support to patients, the satisfaction of women and medical personnel with the childbirth care services in this situation, the need for developing clinical guidelines and trainings devoted to assisting women with stillbirth. The structure of the survey also allowed to prepare a semi-structured interview for detecting factors that influence decision-making process.

We published the survey on Google Forms online resource (https://forms.gle/rEnVMbkUUAmbGHXd6). The links to this survey were available on closed theme-based online resources for intensivists, obstetricians-gynecologists, and other experts working in childbirth care institutions. The survey was also sent by email to the leading research centers of obstetrics and gynecology in the Russian Federation, the Ukraine, Republic of Moldova, Republic of Tajikistan, Republic of Uzbekistan, Republic of Belarus, Republic of Azerbaijan, Republic of Estonia, Republic of Latvia, Republic of Lithuania, Republic of Armenia and Georgia. The respondents were offered to take part in the online survey from 28 June 2019 until 29 February 2020. The questionnaires were filled in anonymously and voluntarily. We have checked the uniqueness of IP address to make sure users wouldn’t duplicate their answers. This web survey was developed and published on e-resources according to the current guidelines [4–6].

**Statistical Data Analysis**

Every question of the questionnaire allowed us to prepare a rating of answers characterising a factor influencing the decision on managing pregnant women with stillbirth during labour and in postpartum period. The rating represents a distribution of a relative frequency (in percentage points) of all supposed answers to given questions. The stated distribution of relative frequencies was calculated inside groups of experts: intensivists and obstetricians-gynecologists. We used chi-square test and Fisher’s exact test to check the hypothesis of statistical significance of difference of the stated ratings between expert groups. The input data were accumulated in the format of an Excel chart (Microsoft Excel 97–2003). All calculations and statistical analysis of data were carried out using SPSS Statistics (version 17.0, update dated 28.07.2019). The level of significance of various frequency distributions of ratings was assumed to be 0.05.

**The Results of Study**

A total of 369 Russian-speaking doctors, intensivists, and obstetricians-gynecologists from more than 30 Russian regions and 11 CIS and non-CIS countries took part in the survey. 63.4 % (n = 234) of the participants of the survey were intensivists and 36.6 % (n = 135) were obstetricians-gynecologists. The survey has sparked the most interest among medical personnel with over 20 years of service (n = 124; 34 %). Whereby distribution of respondents by the length of service was statistically different in two groups (p = 0.001). The compared groups were also statistically different by gender index (p < 0.0001). Intensivists were predominantly male (n = 138; 59 %), whereas most part of obstetricians-gynecologists were female (n = 102; 76 %) (Tab. 1).
Table 1. Description of respondents

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Length of service (in years)</th>
<th>Sex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Men</strong></td>
<td><strong>Women</strong></td>
</tr>
<tr>
<td>Intensivists</td>
<td>&lt; 5</td>
<td>18 (13.0/4.9)*</td>
<td>16 (16.7/4.3)</td>
</tr>
<tr>
<td></td>
<td>5–10</td>
<td>21 (15.2/5.7)</td>
<td>24 (25.0/6.5)</td>
</tr>
<tr>
<td></td>
<td>10–20</td>
<td>42 (30.4/11.4)</td>
<td>26 (27.0/7.0)</td>
</tr>
<tr>
<td></td>
<td>&gt; 20</td>
<td>57 (41.4/15.5)</td>
<td>30 (31.3/8.1)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>138 (59.0/37.4)</td>
<td>96 (41.0/26)</td>
</tr>
<tr>
<td>Obstetricians-gynecologists</td>
<td>&lt; 5</td>
<td>9 (27.3/2.4)</td>
<td>29 (28.4/7.9)</td>
</tr>
<tr>
<td></td>
<td>5–10</td>
<td>7 (21.2/1.9)</td>
<td>28 (27.5/7.6)</td>
</tr>
<tr>
<td></td>
<td>10–20</td>
<td>8 (24.2/2.2)</td>
<td>17 (16.6/4.6)</td>
</tr>
<tr>
<td></td>
<td>&gt; 20</td>
<td>9 (27.3/2.4)</td>
<td>28 (27.5/7.6)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>33 (24.4/8.9)</td>
<td>102 (75.6/27.6)</td>
</tr>
<tr>
<td>TOTAL number of doctors</td>
<td>–</td>
<td>–</td>
<td>369 (100.0)</td>
</tr>
</tbody>
</table>

* The results are represented in the form of $n$ (% of the number of respondents in the group / % of the total number of respondents).

The data analysis has shown that the practical experience of working with stillbirth was statistically different among different experts. Obstetricians-gynecologists ($n = 104; 77 \%$) encountered stillbirths $12 \%$ ($p = 0.028$) more often than intensivists ($n = 152; 65 \%$).

In spite of having less experience of working with stillbirths, most intensivists ($n = 133; 57 \%$) considered it easy for them to build relationships with this category of patients. Obstetricians-gynecologists had no difficulties in communicating with patients with stillbirths in $67 \%$ ($n = 90$) of cases. However, $1/4$ of experts of both specialties (intensivists $[n = 65; 28 \%]$ and obstetricians-gynecologists $[n = 38; 28.5 \%]$) experienced problems in communicating with this group of women. The response ratings had a statistically significant difference between the compared groups of experts: $p = 0.025$.

The need to turn off the mother’s consciousness at the time of giving birth to a dead fetus caused the greatest disagreement. The ratings of answers to this question showed a significant difference in opinions between experts in different fields ($p = 0.0001$). More than half ($n = 131; 56 \%$) of intensivists were in favour of turning off the mother’s consciousness at the time of giving birth to a still fetus. Less than $13 \%$ ($n = 30$) of doctors of this specialty are absolutely against this opinion. $35 \%$ ($n = 47$) of obstetricians-gynecologists were in favour of turning off the mother’s consciousness. Most ($n = 81; 60 \%$) respondents from this group preferred to refuse from deep sedation of the mother (Fig. 1).

The question about the impact of visual and tactile contact of a mother and her dead fetus on the psychoemotional state of the woman has also become quite controversial. Only $1/9$ of obstetricians-gynecologists ($n = 31; 23 \%$) and $1/9$ of intensivists ($n = 20; 9 \%$) think that the contact of a mother and her dead baby has a positive impact on her. Whereby almost $1/2$ of intensivists ($n = 110; 47 \%$) and $1/4$ of obstetricians-gynecologists ($n = 46; 33 \%$) consider this impact to be negative, and $1/4$ of respondents in both groups (intensivists $[n = 63; 27 \%]$ and obstetricians-gynecologists $[n = 40; 30 \%]$) insist that this measure has an absolutely negative effect. Thus, the frequency distribution of answers to this question was significantly different between the respondents of these two groups: $p = 0.002$ (Fig. 2).

Intensivists and obstetricians-gynecologists have been unanimous as per the best method of analgesia. Both groups of experts (intensivists $[n = 145; 62 \%]$ and obstetricians-gynecologists $[n = 71; 53 \%]$) preferred epidural analgesia in more than half of the cases ($57.5 \%$); however, there is a significant difference regarding all other variants (narcotic

![Fig. 1. "Do you consider it necessary to carry out deep sedation of the mother at the time of the birth of the still fetus?"

* If so desired by the patient.

** I consider sedation necessary, but I do not use it due to the lack of conditions for its safe administration.](image-url)
Результаты МЦИ и опросов

Fig. 2. "Do you think visual and tactile contact between a mother and a stillborn child has a positive impact on the psychological and emotional state of a woman in the long term?"

* Depending on individual characteristics and desires of the patient.

аналгезия, до без сознания, отключение матери рассстройство при рождении мертворожденного. В целом, схожесть рейтингов в группах специалистов не достигла статистической значимости, но приближается к установленному уровню: \( p = 0.056 \).

58 % (n = 136) из интенсивистов и 48 % (n = 65) из гинекологов-гинекологов считали, что пациентка должна оставаться сознательной при рождении мертворожденного. Ответы на этот вопрос не показали различий между группами специалистов (\( p = 0.117 \)).

Интенсивисты также показали единодушие относительно тактики применения аналгезии при рождении мертворожденного в медицинском учреждении. Так, 59,5 % (n = 210) респондентов считали, что метод анестезии, используемый в медицинском учреждении, оптимален, 9 % (n = 33) не считают так, 31,5 % (n = 116) заявили, что их медицинские учреждения не используют единых методов анестезии при рождении мертворожденного. Ответы на этот вопрос не показали различий между группами специалистов (\( p = 0.276 \)).

Более половины интенсивистов (n = 131; 56 %) и гинекологов-гинекологов (n = 78; 58 %) считали, что психологические расстройства являются наиболее частыми проблемами у пациентов, претерпевающих гестоз. Однако, частота и статистическая значимость этих проблем варьировались: интенсивисты чаще упомянули гемостазиологические проблемы и комбинации проблем, в то время как гинекологи-гинекологи чаще указывали на гинекологические проблемы, вызванные комбинированным состоянием, и часто оба вида специалистов сталкивались с этими проблемами. В целом, отклонение от медицинской модели в целом не оказывало значимого влияния на рейтинг специалистов: \( p = 0.003 \).

Ответы на вопрос о том, какое место занимает оставление пациента перед его госпитализацией в отделении остается неизменным. Подавляющее большинство респондентов (n = 244; 66 %) считают, что если женщина чувствует себя комфортно в изолированной палате, 23 % (n = 85) из респондентов отмечают, что это связано с наложением на палату в гинекологическом отделении, 7 % (n = 25) указывают на возможность установления специализированных отделений (стационаров) при наличии определенных сложных состояний и 4 % (n = 15) считают, что возможности существуют в отделениях, но часто разные. Таким образом, различий в рейтингах между группами специалистов нет: \( p = 0.654 \).

Интенсивисты 50 % (n = 117) респондентов считают, что после родов рекомендуется использование анестезии в медицинских учреждениях, 37 % (n = 86) из них утверждают, что они используют бензодиазепины, 12 % (n = 28) предпочитают ботаники, а 1 % (n = 3) не используют эти методы из-за отсутствия подходящей комбинации в каждом случае. Ответы на этот вопрос не показали статистически значимых различий между группами специалистов (\( p < 0.0001 \)).

Данные национального исследования показывают, что отсутствие полноценного медицинского и психологического сопровождения в медицинских учреждениях, в которых присутствуют все этапы развития, является важным фактором. На основе данных, 71,5 % (n = 264) респондентов считают, что пациенты удовлетворены медицинским сопровождением, которое было оказано им. Ответы на этот вопрос не показали статистически значимых различий между группами респондентов (\( p = 0.071 \)). Это является важным доводом в пользу того, что решение может быть объективным, особенно в контексте субъективного мнения экспертов. Мы рассмотрели один из трех медицинских учреждений, в котором была предоставлена психологическая помощь, и упомянули, что психологическая помощь была предоставлена для всех пациентов, чтобы они могли поддерживать поддерживающую коммуникацию и заботу. Ответы на этот вопрос не показали различий между группами специалистов (\( p = 0.130 \)).

Что касается удовлетворенности качеством медицинского ухода у пациентов, находящихся в стационарах, то в обеих группах медицинского персонала было единообразие. На среднем уровне, 71,5 % (n = 250; 67,5 %) респондентов считают, что пациенты редко подают жалобы и претензии на качество медицинского сопровождения. Ответы на этот вопрос не показали статистически значимых различий между группами респондентов (\( p = 0.963 \)).

Вопрос о том, удовлетворенность пациентов. Ответы на этот вопрос не показали различий между группами специалистов (\( p = 0.963 \)).
Differences in the views of obstetricians-gynecologists and intensivists based on the results of surveys and interviews. The experts (p < 0.0001) almost unanimously agreed that obstetricians-gynecologists (n = 115; 49%) and intensivists (n = 57; 42%) selected the answer “rather no”. The share of intensivists who gave a clear positive answer (n = 47; 20%) was twice less than that of obstetricians-gynecologists (n = 54; 40%). The share of respondents answering “rather no” among intensivists (n = 40; 17%) was almost 6 times higher compared with obstetricians-gynecologists (n = 4; 3%) (Fig. 3).

The ratings of answers to the question about the need for developing clinical guidelines on the studied problem do not have a statistically significant difference between the groups of respondents (p = 0.071). Obstetricians-gynecologists are more confident in the need of such guidelines (75% [n = 101] — “definitely yes” and almost 20% [n = 26] — “rather yes than no”), than intensivists (64% [n = 150] — “definitely yes” and almost 22% [n = 51] — “rather yes than no”). Only 6% (n = 8) of obstetricians-gynecologists and 14% (n = 33) of intensivists gave a negative answer to this question.

The question about the need of trainings/workshops has shown bigger differences between the experts of different profiles (p = 0.011). Slightly less than 1/3 (n = 40; 17%) of all respondents among intensivists are rather or definitely negative regarding this idea, whereas only 1/20 (n = 7; 5%) among obstetricians answered this way.

Discussion

The received data clearly show disagreement between intensivists and obstetricians-gynecologists regarding the need to turn off the consciousness of a mother giving birth to a dead fetus, the impact of visual and tactile contact of a mother and her dead fetus on her psychoemotional state in the long-term, the need of sedation in postpartum period. Obstetricians-gynecologists are more experienced in working with stillbirth than intensivists. However, intensivists’ length of service is significantly above that of obstetricians-gynecologists (see Tab. 1).

The difference between the length of service and experience of working with stillbirth is most likely related to managing childbirth without intensivists.

Intensivists find it as easy to communicate with this group of patients as obstetricians-gynecologists. This can stem from longer service of intensivists, gender heterogeneity of the groups with the prevalence of men’s standpoint among intensivists and personal characteristics that are more typical for people who chose anesthesiology and resuscitation as their specialty.

The adherence of intensivists to turning off the mother’s consciousness at the time of giving birth to a dead fetus, unlike obstetricians-gynecologists, stem from many factors. Probably, the main role in this process is played by intensivists’ strong belief (almost 90%) in the negative impact of contact between the mother and her stillborn baby. When discussing possible reasons of a disagreement that significant, it’s necessary to consider the results of semi-structured interviews’ analysis. About 8% (n = 10) of obstetricians-gynecologists stated that they are afraid of patients’ lawsuits resulting from patients’ mistrust to the personnel and prefer that the woman witnessed the stillbirth in spite of a possible psychological trauma. However, 23% (n = 31) of all obstetricians-gynecologists who were female consider the contact of mother and fetus necessary, probably judging by the experience of their own maternity. Male intensivists in 24% (n = 56) of cases explained the need of a deep sedation of the mother by humane treatment of the bereaved woman. The studies conducted in the Russian Federation demonstrate prevailing negative attitude of medical personnel to a woman’s staying conscious when giving birth to a dead fetus as well as to her contact with the dead baby [7]. Foreign studies conducted in other developed countries demonstrate decreased risk of mental disturbances and their severity in postpartum period for women with stillbirth who found themselves in the environment where they could see their stillborn baby, hold it, say goodbye to it and comprehend what has happened [8–11].

It is worth mentioning that one in five experts is guided by their own opinion rather than the patient’s desire when selecting the tactics of managing childbirth. However, it is necessary to specify that most respondents thought that it is easy for them to build up supportive relationship with a patient. One cannot but mention the subjective nature of the experts’ opinions about their communicative abilities, because according to the literature, communication with families that experienced perinatal loss is not always built up by doctors in the appropriate manner [7, 12, 13].

Different opinions regarding postpartum sedation of patients with stillbirth can be explained by the fact that obstetricians-gynecologists take more active part in managing postpartum patients than intensivists.

A possible reason for lesser satisfaction of intensivists when assisting this group of patients and their rejection of professional development can be burnout syndrome related to their longer service.

Although many publications devoted to fetus death are present in Russian and foreign literature, all of them cover the issues of forecast, estimation of reasons for stillbirth...
and demographic patterns of this pathology leaving out the aspects of managing childbirth with the dead fetus and discussing the patients’ desires.

Conclusion

Since the groups of respondents had statistically significant difference both in terms of the length of service and gender composition, significant mismatch of ratings for approximately half of the survey’s questions cannot be explained by different medical specialties alone. However, the questions having the most different ratings illustrate the existence of many unsolved problems and require joint development of agreed documents on the optimal management of pregnant women with stillbirth.

Developing of new clinical guidelines requires possessing own data, including the ones that consider the national mentality and the opinion of the patients that have experienced a perinatal loss. This will be discussed in our further studies.

Conflict of Interest. The authors state that the conflict of interest is absent.

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