PERINATAL OUTCOMES OF PREGNANT REFUGEES/ASYLUM SEEKERS IN SLOVENIA DURING THE 2015–2016 HUMANITARIAN CORRIDOR

Lea Bombač, Tanja Premru-Sršen, Miha Lučovnik, Uršula Lipovec Čebron

Introduction

During 2015 and 2016, a large number of refugees, including women, travelling along the so-called Balkan route crossed Slovenia. Studies increasingly show that women who migrate have different perinatal health outcomes compared to citizens. Aim. To review perinatal outcomes in pregnant refugees/asylum seekers giving birth in Slovenia during the 2015–2016 “humanitarian corridor”. Methods. Questionnaires on numbers of pregnant refugees/asylum seekers giving birth in Slovenia during 2015–2016, their perinatal outcomes and their perinatal care were sent to state institutions (Ministry of Health, Ministry of Internal Affairs, and National Institute for Public Health) and all 14 country’s maternity hospitals. Results. Data on perinatal outcomes in refugees/asylum seekers were available only at maternity hospitals, suggesting there is no national governmental system for collecting information on health of pregnant refugees/asylum seekers in Slovenia. Twelve refugees/asylum seekers who delivered in Slovenia during the “humanitarian corridor” in 2015–2016 were identified. Three (25%) of these deliveries were preterm births (<37 weeks of gestation). There were two (16%) emergency cesarean deliveries and no stillbirths or neonatal deaths. Average neonatal birth weight was 3130 g. Discussion. A very high (25%) preterm birth rate and a high emergency cesarean rate (16%) in the population of refugees/asylum seekers delivering in Slovenia during 2015–2016 “humanitarian corridor” was found. This study also identified several inadequacies in perinatal data collection in pregnant refugees/asylum seekers in Slovenia. Conclusions. Given the potentially higher incidence of perinatal complications, such as preterm birth or need for emergency cesarean delivery, seen in the present study, it is important to develop systems of data collection in pregnant refugees/asylum seekers.

Original research article

Key words: pregnant women, perinatal outcome, health care, migration, refugees, asylum seekers, Slovenia.

SUMMARY

Introduction. During 2015 and 2016, a large number of refugees, including women, travelling along the so-called Balkan route crossed Slovenia. Studies increasingly show that women who migrate have different perinatal health outcomes compared to citizens. Aim. To review perinatal outcomes in pregnant refugees/asylum seekers giving birth in Slovenia during the 2015–2016 “humanitarian corridor”. Methods. Questionnaires on numbers of pregnant refugees/asylum seekers giving birth in Slovenia during 2015–2016, their perinatal outcomes and their perinatal care were sent to state institutions (Ministry of Health, Ministry of Internal Affairs, and National Institute for Public Health) and all 14 country’s maternity hospitals. Results. Data on perinatal outcomes in refugees/asylum seekers were available only at maternity hospitals, suggesting there is no national governmental system for collecting information on health of pregnant refugees/asylum seekers in Slovenia. Twelve refugees/asylum seekers who delivered in Slovenia during the “humanitarian corridor” in 2015–2016 were identified. Three (25%) of these deliveries were preterm births (<37 weeks of gestation). There were two (16%) emergency cesarean deliveries and no stillbirths or neonatal deaths. Average neonatal birth weight was 3130 g. Discussion. A very high (25%) preterm birth rate and a high emergency cesarean rate (16%) in the population of refugees/asylum seekers delivering in Slovenia during 2015–2016 “humanitarian corridor” was found. This study also identified several inadequacies in perinatal data collection in pregnant refugees/asylum seekers in Slovenia. Conclusions. Given the potentially higher incidence of perinatal complications, such as preterm birth or need for emergency cesarean delivery, seen in the present study, it is important to develop systems of data collection in pregnant refugees/asylum seekers.
of migration emphasizes that pregnant migrants come to the first examination later than nationals, numerous only in the last third trimester (17). Pregnant migrants, even those who are living longer periods in a certain territory but without legalized status, come to the first prenatal visit later than other women and many of them do not seek prenatal care until the third trimester (8, 16). Similarly, Doctors without borders report a very high percentage (58.4%) of pregnant migrants across eleven different EU countries, including Slovenia, that had not accessed prenatal care at all (16).

In response to this information, we reviewed perinatal outcomes in pregnant refugees/asylum seekers giving birth in Slovenia during the 2015–2016 “humanitarian corridor”.

Note: The term asylum seeker denotes a displaced person who has applied for but has not yet been given international protection. When an asylum seeker is granted international protection, he or she ceases to be an asylum seeker and becomes a refugee. However, colloquially, the term refugee typically refers to everyone fleeing unfavorable conditions in their homeland, regardless of whether such a person seeks an asylum, is granted or denied an asylum. Since the line between the terms asylum seeker and refugee is often unclear and many authors are using these terms interchangeably, both terms will be used in the present paper.

Materials and methods

We used two questionnaires to collect information on numbers of pregnant refugees/asylum seekers in Slovenia during the period 2015–2016. We also inter-

Questionnaire 1. Questionnaire used to collect data from state authorities on numbers of pregnant refugees/asylum seekers and organization of their prenatal care in Slovenia in 2015–2016.

- State authority.
  a. Ministry of Health
  b. Ministry of Internal Affairs
  c. National Institute of Health
  a. Number:
  b. We do not have the data.
- Number of pregnant refugees/asylum seekers that entered Slovenia in 2015–2016.
  a. Number:
  b. We do not have the data.
- Number of pregnant refugees/asylum seekers that received prenatal care in Slovenia in 2015–2016.
  a. Number:
  b. We do not have the data.
- Number of pregnant refugees/asylum seekers that delivered in Slovenia in 2015–2016.
  a. Number:
  b. We do not have the data.
- How was prenatal care for refugees/ asylum seekers organized in Slovenia during the "humanitarian corridor" period? (Questionnaire 1)
  a. We had a protocol for prenatal care for pregnant refugees/asylum seekers.
  b. We did not have a special protocol, pregnant refugees/asylum seekers were included in regular prenatal care locally.
  c. We did not have a special protocol, prenatal care of pregnant refugees/asylum seekers depended on local initiative.

Questionnaire 2. Questionnaire used to collect data from maternity hospitals on perinatal outcomes in refugees/asylum seekers in Slovenia in 2015–2016.

- Number of all deliveries at your hospital in 2015–2016.
  a. Number:
  b. We do not have the data.
- Number of deliveries at your hospital in 2015–2016.
  a. Number:
  b. We do not have the data.
- Number of deliveries at your hospital in 2015–2016.
  a. Number:
  b. We do not have the data.
- Number of all deliveries at your hospital in 2015–2016.
  a. Number:
  b. We do not have the data.
- Number of pregnant deliveries (<completed 37 weeks) in refugees/ asylum seekers at your hospital in 2015–2016.
  a. Number:
  b. We do not have the data.
  a. Number:
  b. We do not have the data.
- Number of neonates with birth weight <10th percentile for gestational age born to refugees/ asylum seekers at your hospital in 2015–2016.
  a. Number:
  b. We do not have the data.
- Average birth weight of neonates born at gestational ages between 39 weeks 0 days and 40 weeks 6 days to refugees/ asylum seekers at your hospital in 2015–2016.
  a. Average birth weight:
  b. We do not have the data.

Results

We received no answers from state authorities. On the other hand, all 14 maternity hospitals responded. Overall, 12 pregnant refugees/asylum seekers delivered in Slovenia during the 2015–2016 “humanitarian corridor” period. Three (25%) of these deliveries were premature deliveries (<completed 37 weeks). Two women (16%) delivered by cesarean section. No stillbirths, neonates with birth weight <10th percentile for gestational age or early neonatal deaths were reported. Average birth weight was 3130 g. Table 1 presents perinatal data for each maternity hospital separately. Number of all deliveries in Slovenia during 2015–2016 was 39799, average birth weight of neonates born at gestational ages between 39 weeks 0 days and 40 weeks 6 days in Slovenia was 3340 g and average cesarean section rate...
was 17.5% (emergency cesarean section rate 8.6%) (National Perinatal Information System data).

**Discussion**

We found a high (25%) preterm birth rate and no perinatal deaths among refugees/asylum seekers in Slovenia during the 2015–2016 “humanitarian corridor” period. While the observed 16% cesarean section rate is lower than the country’s general cesarean rate of approximately 20%, it has to be noted that the incidence cesarean sections in labor in Slovenia (excluding planned cesarean deliveries) is lower than 10% (18). Since it is safe to assume that the majority of cesarean deliveries in refugees/asylum seekers included in the study were performed in women presenting in labor, the 16% emergency cesarean rate should be considered high for Slovenian perinatal clinical practice.

High preterm birth and high cesarean section rates found in our study are in line with previously published data on worse perinatal outcomes in migrant mothers compared to non-migrant population in Western countries (13, 14, 19–22). Higher rates of perinatal complications are most probably due to the net effect of a number of social and biological factors. Among biological factors, earlier maturity of the feto-placental unit in certain ethnic groups and differences in vaginal microbial flora leading to preterm birth in certain migrant populations have been proposed (23, 24). Among socio-economic and environmental factors, lack of social support and increased stress experienced by pregnant refugees/asylum seekers seem to contribute the most to increased incidence of complications in pregnancy (5). In addition, our previous studies showed that refugees/asylum seekers experience many difficulties when seeking health care (25–28). For example, non-insured pregnant asylum seekers have legally no right to choose a personal gynecologist in Slovenia. This means they cannot be provided high-quality prenatal care despite the fact that legislation grants equal health rights to pregnant asylum seekers as it does to its nationals (29). Moreover, several linguistic and cultural barriers to health care for migrant population have also been identified in previous research (29–34). The consequences of these barriers are multifold: from avoiding or delaying the visit to the doctor, to numerous misunderstandings, unsatisfactory or even traumatic experiences in medical settings. All of this can lead to an inadequate access to quality healthcare services and insufficient healthcare treatment.

Small number of deliveries included is the study’s major limitation. Results should, therefore, not be over-interpreted as they could simply be due to chance. However, the fact that only 12 deliveries in refugees/asylum seekers could be identified during a two-year period which saw more than 420.000 refugees crossing the county is, in our opinion, a very important finding by itself. It emphasizes the fact that there is no systematically collected information on women with migrant background in Slovenia. Lack of response from state authorities to our questionnaire further corroborates this. Epidemiological data on migrant population can also not be extracted from country’s existing databases of health services due to the so called Healthcare Databases Act (zzPPz), which does not require health providers to collect data on nationality or country of origin of a patient (34, 35). Slovenian Institute of Public Health’s data include numbers of foreigners visiting health institutions at the primary and secondary level and numbers of hospitalizations of foreign nationals. These data could, however, also not be used to analyze healthcare provided to refugees/asylum seekers since foreigners are defined as all persons who have permanent residence abroad (34). More detailed data on foreigners in the context of health care are collected at the

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**Table 1. Number of pregnant refugees/asylum seekers in Slovenia and their perinatal outcome during the period 2015–2016.**

<table>
<thead>
<tr>
<th>Location</th>
<th>No. of deliveries</th>
<th>No. of neonates</th>
<th>No. of preterm deliveries</th>
<th>No. of cesarean deliveries</th>
<th>Average birth weight of neonates born at gestational ages between 39 weeks 0 days and 40 weeks 6 days (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ljubljana</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>3320</td>
</tr>
<tr>
<td>Maribor</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>3130</td>
</tr>
<tr>
<td>Celje</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postojna</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novo mesto</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kranj</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jesenice</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3000</td>
</tr>
<tr>
<td>Izola</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nova Gorica</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brežice</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3525</td>
</tr>
<tr>
<td>Trbovlje</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ptuj</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Murska Sobota</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slovenj Gradec</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In total</strong></td>
<td><strong>12</strong></td>
<td><strong>12</strong></td>
<td><strong>3</strong></td>
<td><strong>2</strong></td>
<td><strong>3130</strong></td>
</tr>
</tbody>
</table>
Health Insurance Institute of Slovenia, for example permanent or temporary residence and citizenship. Nevertheless, Health Insurance Institute only keeps records of persons included in the mandatory health insurance, which again make these data inadequate for analysis of healthcare provided to pregnant refugees/asylum seekers (34). Seeking data directly from maternity hospital has, therefore, turned out to be the most reliable method to analyze perinatal care and outcomes of refugees/asylum seekers in Slovenia. This method too, however, has many drawbacks. Since there are two legally defined possibilities how medical expenses of a refugee/migrant in Slovenia are covered, i.e. by the national health insurance (refugees) or directly by the Ministry of Health (asylum seekers), it is possible that only those cases financed by the Ministry of Health were recognized as cases of refugees/migrants as refugees covered by the national health insurance could not be identified as such on the basis of their nationality alone. This could have led to many deliveries in refugee/asylum seeker population that have not been included in the present study explaining the small numbers analyzed.

In conclusion, prospectively collected epidemiological data on pregnant refugees/asylum seekers, their perinatal outcomes or medical treatment in Slovenian health institutions are not available. Given the potentially higher incidence of perinatal complications, such as preterm birth or need for emergency cesarean delivery, seen in the present study, it is important to develop systems of data collection in pregnant refugees/asylum seekers. Such systems should not serve as a mean of greater bio-political control over migrant populations but should help to better understand effects of migration on perinatal health and needs of migrant pregnant women (36–38). Collection and meaningful analysis of such data is crucial for developing evidence-based strategies to improve perinatal care and, consequently, outcomes of pregnant refugees/asylum seekers.

**Conclusion**

The study found a very high preterm birth rate and a high emergency cesarean rate and identified several inadequacies in perinatal data collection in pregnant refugees/asylum seekers in Slovenia. The results of this study expose worse perinatal outcomes in migrant mothers compared to non-migrant population, therefore large follow up studies are needed to assess the underlying reasons.

**Literature**


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PERINATALNI ISHOD
TRUDNICA IZBJEGLICA/TRAŽITELJICA AZILA U SLOVENIJI TIJEKOM HUMANITARNOG KORIDORA 2015–2016

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Ključne riječi: trudnoća, perinatalni ishod, zdravstvena skrb, migracija, izbjeglica, tražiteljica azila, Slovenija