**Supplementary Table 1.** Supplementary information regarding the studied cohort (total n = 461)

|  |  |  |
| --- | --- | --- |
| **Descriptive statistics** | | |
| **In which province do you work?** | | |
| Dolnośląskie | 32 | 6.90% |
| Kujawsko-pomorskie | 21 | 4.60% |
| Lubelskie | 17 | 3.70% |
| Lubuskie | 20 | 4.30% |
| Łódzkie | 20 | 4.30% |
| Małopolskie | 30 | 6.50% |
| Mazowieckie | 66 | 14.30% |
| Opolskie | 14 | 3.00% |
| Podkarpackie | 20 | 4.30% |
| Podlaskie | 17 | 3.70% |
| Pomorskie | 24 | 5.20% |
| Śląskie | 108 | 23.40% |
| Świętokrzyskie | 16 | 3.50% |
| Warmińsko-mazurskie | 15 | 3.30% |
| Wielkopolskie | 24 | 5.20% |
| Zachodniopomorskie | 17 | 3.70% |
| **Do you think that training on ECV should be provided?** | | |
| No | 15 | 3.30% |
| No opinion | 61 | 13.20% |
| Yes | 385 | 83.50% |

**Supplementary Table 2.** Comparison of the responses to the questions concerning knowledge on ECV and management of choice in pregnancies with non-cephalic presentation in specialist and residents groups

|  |  |  |  |
| --- | --- | --- | --- |
| **Profession** | **Obstetric and gynecology specialists** | **Obstetric and gynecology residents** | **p value** |
| **n** | **259** | **202** |
| **Work experience** | | | |
| 5–20 years | 207 (79.9) | 46 (22.8) | <0.001 |
| < 5 years | 6 (2.3) | 154 (76.2) |
| > 20 years | 46 (17.8) | 2 (1.0) |
| **Reference level of the department of respondents’ workplace** | | | |
| I level | 53 (21.5) | 69 (34.3) | 0.007 |
| II level | 136 (55.3) | 99 (49.3) |
| III level | 57 (23.2) | 33 (16.4) |
| **Management of choice of the respondents in a primiparous, term pregnancy with a non-cephalic fetal presentation** | | | |
| Elective cesarean section | 193 (74.5) | 170 (84.2) | 0.017 |
| ECV | 66 (25.5) | 32 (15.8) |
| **Management of choice of the respondents in a multiparous, term pregnancy with a non-cephalic fetal presentation** | | | |
| Elective cesarean section | 173 (66.8) | 166 (82.2) | 0.001 |
| ECV | 76 (29.3) | 33 (16.3) |
| Vaginal delivery in case of breech presentation | 10 (3.9) | 3 (1.5) |
| **Experience with ECVs (the sum in the column could exceed 100%)** | | | |
| Knowledge concerning a facility performing the procedure | 180 (69.5) | 160 (79.2) | 0.025 |
| Working in a facility performing the procedure | 75 (29.0) | 40 (19.8) | 0.032 |
| History of observing the procedure | 45 (17.4) | 37 (18.3) | 0.005 |
| History of performing/assisting for the procedure | 56 (21.6) | 21 (10.4) |
| **Experience of referral/providing information concerning the patient diagnosed with non-cephalic fetal position for the procedure** | | | |
| Providing information | 148 (57.1) | 118 ( 58.4) | 0.858 |
| Providing information and referring | 89 (34.4) | 54 ( 26.7) | 0.098 |
| **The estimated effectiveness of ECVs performed in primiparous women according to the respondents** | | | |
| < 20% | 26 (10.0) | 10 (5.0) | 0.002 |
| 20–40% | 104 (40.2) | 60 (29.7) |
| 40–60% | 117 (45.2) | 110 (54.5) |
| 60%-80% | 12 (4.6) | 22 (10.9) |
| **The estimated effectiveness of ECV performed in multiparous women according to the respondents** | | | |
| < 20% | 3 (1.2) | 1 (0.5) | 0.005 |
| 20–40% | 65 (25.1) | 26 (12.9) |
| 40–60% | 112 (43.2) | 93 (46.0) |
| 60–80% | 79 (30.5) | 82 (40.6) |
| **Optimal time for performing the ECV of the fetus:** | | | |
| at the earliest on the due date | 10 (3.9) | 9 (4.5) | 0.598 |
| at 35. weeks’gestation | 9 ( 3.4) | 7 (3.5) |
| at 37. weeks’gestation | 240 (92.7) | 186 (92.1) |
| **The estimated total percentage of ECV complications is:** | | | |
| 1–5% | 110 (42.5) | 131 (64.9) | <0.001 |
| 5–15% | 133 (51.4) | 66 (32.7) |
| More than 15% | 16 (6.2) | 5 (2.5) |
| **The risk of emergency cesarean section in ECV procedure is:** | | | |
| < 1% | 98 (37.8) | 86 (42.6) | 0.236 |
| 1–10% | 142 (54.8) | 108 (53.5) |
| 10–15% | 19 (7.3) | 8 (4.0) |
| **The estimated percentage of cases where the fetus returns to its previous position after a successful ECV** | | | |
| 1–5% | 143 (55.2) | 137 (67.8) | 0.020 |
| 5–15% | 108 (41.7) | 59 (29.2) |
| More than 15% | 8 (3.1) | 6 (3.0) |
| **The estimated percentage of vaginal births after successful ECV:** | | | |
| > 70% | 64 (24.7) | 82 (40.6) | 0.001 |
| 10–30% | 28 (10.8) | 11 ( 5.4) |
| 30–70% | 167 (64.5) | 109 (54.0) |
| **Do you think that training on ECV should be provided?** | | | |
| No | 12 (4.6) | 3 (1.5) | < 0.001 |
| No opinion | 53 (20.5) | 8 (4.0) |
| Yes | 194 (74.9) | 191 (94.6) |
| **Absolute contraindications for ECV:** | | | |
| Placenta previa | 254 (98.1) | 201 (99.5) | 0.350 |
| History of lower uterine segment cesarean section | 133 (51.4) | 82 (40.6) | 0.028 |
| Oligohydramnios | 136 (52.5) | 69 (34.2) | < 0.001 |
| History of classical cesarean section | 236 (91.1) | 184 (91.1) | 1.000 |
| Intrauterine fetal growth restriction | 147 (56.8) | 89 (44.1) | 0.009 |
| Placental abruption | 253 (97.7) | 190 (94.1) | 0.080 |
| Uterine defect | 170 (65.6) | 87 (43.1) | < 0.001 |
| Lack of fetal well-being before the procedure | 230 (88.8) | 188 (93.1) | 0.161 |
| Estimated fetal weight > 3500 g | 68 (26.3) | 21 (10.4) | < 0.001 |

ECV — External Cephalic Version

**Supplementary Table 3.** Results of the dependency analysis of knowledge scores and selected variables conducted using a quantile regression model

10 percentile (n = 461)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Beta** | **CI lower** | **CI upper** | **p value** |
| **Proffesion of the respondents** |  |  |  |  |
| Doctor undergoing the specialization in obstetric and gynecology | 1 | –4.98 | 6.98 | 0.74 |
| **Length of service of the respondents** | | | |  |
| Less than 5 years | –1 | –7.02 | 5.02 | 0.74 |
| More than 20 years | 0 | –17.76 | 17.76 | 1.00 |
| **The degree of reference of the department of respondents’ workplace** | | | | |
| IInd level of reference | 0 | –3.54 | 3.54 | 1.00 |
| IIIrd level of reference | 1 | –2.06 | 4.06 | 0.52 |
| **Experience with ECVs** | | | | |
| Working in a facility performing the procedure | 1 | –19.22 | 21.22 | 0.92 |

ECV — External Cephalic Version

**Questionnaire (answers to questions 14-21 considered as a correct one indicated in italics for the purpose of this analysis)**

1. What is your profession? (single-choice question)
   1. Doctor undergoing the specialization in obstetrics and gynecology
   2. Specialist in obstetrics and gynecology
2. In which province do you work? (expandable list with the names of the Polish provinces)
3. What is your length of service? (single-choice question)
   1. Less than 5 years
   2. 5–20 years
   3. More than 20 years
4. What is your work place? (multiple-choice question)
   1. Outatient clinic
   2. County hospital
   3. Provincial hospital
   4. Clinical hospital
5. What is the level of reference of the department you work in? (single-choice question)
   1. Ist level of reference
   2. IInd level of recerence
   3. IIIrd level of reference
   4. Not applicable
6. What is your management of choice in a primiparous, term pregnancy with a non-cephalic fetal presentation? (single-choice question)
   1. Elective cesarean section
   2. External cephalic version
7. What is your management of choice of the respondents in a multiparous, term pregnancy with a non-cephalic fetal presentation? (single-choice question)
   1. Elective cesarean section
   2. External cephalic version
   3. Vaginal delivery in case of breech presentation
8. Do you know facilities performing external cephalic version?
   1. Yes
   2. No
9. Do you work in facility, where external cephalic versions are perfomed?
   1. Yes
   2. No
10. Have you ever actively participated in external cephalic version procedure?
    1. Yes, I have observed the procedure
    2. Yes, I have performed/assisted for the procedure
    3. No
11. Have you ever provided information about external cephalic version to the patient diagnosed with non-cephalic fetal presentation?
    1. Yes
    2. No
12. Have you ever referred the patient to the facility performing external cephalic version?
    1. Yes
    2. No
13. What, in your opinion, might be the concerns of the medical staff in relation to the external cephalic version procedure? (Please answer each sub-point: 1-Strongly no, 2-Rather not, 3-I have no opinion, 4-Rather yes, 5-Decided yes)
    1. High risk of complications of ECV
    2. High risk of emergency cesarean section after ECV
    3. Pain during the procedure
    4. Low procedural efficacy of the procedure
    5. Distance of the centre performing the ECV from the patient's place of residence
14. What is the estimated effectiveness of external cephalic versions performed in primiparous women? (scored question, 1 point maximum)
    1. < 20%
    2. *20%–40%*
    3. 40%–60%
    4. 60%–80%
15. What is the estimated effectiveness of external cephalic versions performed in multiparous women? (scored question, 1 point maximum)
    1. < 20%
    2. 20–40%
    3. *40–60%*
    4. 60–80%
16. What is the optimal time for performing the external cephalic version of the fetus? (scored question, 1 point maximum)
    1. at the earliest on the due date
    2. at 35 weeks' gestation
    3. *at 37 weeks' gestation*
17. What are the absolute contraindications for external cephalic version (multiple-choice, (scored question, 5 points for not selecting answers b, c, e, g, i):
    1. *Placenta previa*
    2. History of lower uterine segment cesarean section
    3. Oligohydramnios
    4. *History of classical cesarean section*
    5. Intrauterine fetal growth restriction
    6. *Placental abruption*
    7. Uterine defects
    8. *Lack of fetal well-being before the procedure*
    9. Estimated fetal weight > 3500 g
18. What is the estimated total percentage of external cephalic version complication? (scored question, 1 point maximum)
    1. *1-–5%*
    2. 5–15%
    3. More than 15%
19. What is the estimated risk of emergency cesarean section in external cephalic version? (scored question, 1 point maximum)
    1. *< 1 %*
    2. 1–10 %
    3. 10–15%
20. What is the estimated percentage of cases where the fetus returns to its previous position after a successful external cephalic version? (scored question, 1 point maximum)
    1. *1–5%*
    2. 5–15%
    3. More than 15%
21. What is the estimated percentage of vaginal births after successful external cephalic version? (scored question, 1 point maximum)
    1. *> 70%*
    2. 30–70%
    3. 10–30%
22. Do you think that training on external cephalic version should be provided?
    1. Yes
    2. No
    3. I have no opinion