Obstetric Anaesthesia and Analgesia Related Complications in Czech and Slovak Republics: National Observational Survey in 2015

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Background and Goal of Study

In the 2011 year OBAAMA-CZ study described anaesthesiological practice for obstetric anaesthesia and analgesia in the Czech Republic. One of the objectives of the OBAAMA-INT study performed in the year 2015 was to describe obstetric anaesthesia and analgesia related complications in the Czech (CZ) and Slovak Republics (SR).

Materials and Methods

OBstetric Anaesthesia and Analgesia Month Attributes International (OBAAMA-INT) was held on anaesthetic departments throughout the CZ and SR. With Ethical Committees Approval we aimed to enroll all 149 obstetric departments in CZ and SR and to monitor every case of anaesthetic care in peripartum period and all anaesthesia and analgesia related complications during November 2015. Data were recorded to Case Report Form with two parts (Demography 2014 and Case Report). Data were registered with the use of CLADE-IS - Electronic Data Capture system (Institute of Biostatistics and Analyses, Ltd.) and described descriptively (incidence, mean, median, SD).

Results and Discussion

During the study period, we enrolled 105 participating centers (70 in CZ; 35 in SR) and 3 590 valid cases. Caesarean Section (CS) was recorded in 2 548 cases (71.0%), 1158 cases (31.4%) were obstetric analgesia and 181 cases (5.0%) were early postpartum procedures. The most preferred type of anaesthesia for CS was neuraxial anaesthesia (62.5%); spinal in 87.5%. Most frequent complications related to general anaesthesia were difficult airways (1.4%) at the induction, hypertension (7.9%) and tachycardia (5.2%) during the anaesthesia. Complications related to spinal or epidural anaesthesia were more than 1 attempt to achieve neuraxial space (23.6%; 16.1%), blood in the needle (1.9%; 1.0%), paresthesia (1.3%; 1.0%) and high blockade (0.4%; 0.5%). Epidural labor analgesia rate was 11.1%. For epidural labor analgesia the most frequent complication was more than 1 attempt to achieve epidural space (15.5%), blood in the needle or catheter (3.1%) and unattended dural puncture (0.7%). Postpuncture headache was recorded in 1.2% overall. In case of epidural labor analgesia it was more frequently associated with multiple attempts (p=0.007) and unattended dural puncture (p< 0.001).

Conclusion

There are no previously published Czech and Slovak national data available, hence presented data are very important starting point for future improvement.

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Endorsement

Czech Society of Anaesthesiology and Intensive Care Medicine
Slovak Society of Anaesthesiology and Intensive Care Medicine

Figure 1 Participating Centers

General Anaesthesia				Regional Anaesthesia			
	Total	CZ	SR		Total	CZ	SR
Induction (N)	956	672	284	Spinal (N)	1 393	846	547
Regurgitation	0.1 %	0.1 %	0.0 %	Blood in Needle	1.9 %	1.4 %	2.6 %
Hyposaturation	0.3 %	0.1 %	0.7 %	Parresthesias	1.3 %	1.2 %	1.5 %
Difficult Airway	1.4 %	1.5 %	1.1 %	High Blockade	0.4 %	0.5 %	0.2 %
Other	0.2 %	0.1 %	0.4 %	Blockade Failure	0.3 %	0.2 %	0.4 %
Course (N)	956	672	284	Allergic Reaction	0.1 %	0.0 %	0.2 %
Hypertension	7.9 %	9.1 %	5.3 %	Attempts ≥ 2	23.6 %	22.8 %	24.9 %
Hypotension	1.3 %	1.2 %	1.4 %	Epidural (N)	193	168	25
Tachycardia	5.2 %	4.8 %	6.3 %	Blood in Needle	0.5 %	0.6 %	0.0 %
Bradycardia	0.4 %	0.3 %	0.7 %	Blood in Catheter	0.5 %	0.6 %	0.0 %
Arrhythmia	0.5 %	0.3 %	1.1 %	Parresthesias	1.0 %	0.6 %	4.0 %
Hyposaturation	0.5 %	0.1 %	1.4 %	High Blockade	0.5 %	0.6 %	0.0 %
Other	0.8 %	0.7 %	1.1 %	Blockade Failure	0.5 %	0.6 %	0.0 %
				Attempts ≥ 2	16.1 %	16.1 %	16.0 %
				Combined (N)	6	3	3
				Attempts ≥ 2	33.3 %	0.0 %	66.7 %

Figure 2 Obstetric Anaesthesia Related Complications

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