nione, za wyjątkiem sytuacji, w której inne rozwiązania nie są dostępne. I tu podzielamy opinie autorów cytowanych przez Kolegę na temat małej skuteczności analgetycznej tych środków i ich nieznanym wpływie na rozwijający się mózg dziecka [9].

Podsumowując, zgadzamy się z częścią konkluzji Kolegi Chutkowskiego, że analgezja zewnątrzoponowa nadal pozostaje „złotym standardem" w analgezji porodu. Uważamy jednak, że remifentanyl PCA powinien być zaakceptowanym alternatywnym standardem podobnie jak ma to miejsce na świecie i co zgodnie podkreślają wszyscy zacytowani przez Kolegę autorzy.

Warto, aby z tej polemiki wynikły trzy ważne wnioski:

1. PCA z użyciem remifentanylu może być wartościową alternatywą dla CZZO w przypadku, gdy jest ona trudna lub niemożliwa do zastosowania.
2. Zastosowanie remifentanylu PCA bezwzględnie wymaga zabezpieczenia opieki nad rodzącą z bezpośrednim ciągłym nadzorem 1:1 i możliwością okresowego zastosowania tlenu w razie potrzeby.
3. Zasady stosowania remifentanylu PCA powinny być opracowane w formie rekomendacji odpowiednich polskich towarzystw naukowych.

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Adres do korespondencji:
dr n. med. Joanna Sołek-Pastuszka
Katedra i Klinika Anestezjologii i Intensywnej Terapii PUM
ul. Unii Lubelskiej 1, 70–252 Szczecin
e-mail: pastuszka@mp.pl

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Cut-off point for switching from non-invasive ventilation to intubation in severe ARDS. Still a spectrum of greys and whites

Szymon Skoczyński[1], Antonio M. Esquinas[2]

[1]*Katedra i Klinika Pneumonologii Śląskiego Uniwersytetu Medycznego w Katowicach*
[2]*Intensive Care Unit, Hospital General Universitario Morales Meseguer, Murcia, Spain*

Dear Editor,

Acute respiratory failure (ARF) and aspiration pneumonia were the most frequently observed respiratory complications after acute heroin overdose requiring endotracheal intubation (ETI) and intensive care unit (ICU) admission [1]. In some selected cases of drug overdose, noninvasive ventilation (NIV) could have avoided associated complications [2].

We were fortunate to have had a chance to read an article entitled "Swift recovery of acute hypoxemic respiratory failure under non-invasive ventilation" by Pichot *et al.* [3]. The authors present interesting evidence regarding the possible implementation of NIV in a patient presenting acute respiratory failure (ARDS) with extremely impaired PaO_2/FiO_2 ratio. It is important to underline that the report provides new potential indication in highly selected patients which, in special circumstances, it is possible to treat ARDS with the use of NIV with high positive end expiratory pressure (PEEP) and FiO_2.

However, although the dynamic changes of clinical status during treatment were explained in the article, we consider that there are some factors to take into account in order to consolidate this observation in unconscious patients, those suspected of cocaine intake and with severe impairment of arterial blood gases (pH = 7.19, $PaCO_2$ = 69 mm Hg, PaO_2 = 57 mm Hg, SaO_2 = 84%), precise more precisely

Należy cytować wersję: *Skoczyński S, Esquinas AM:* Cut-off point for switching from non-invasive ventilation to intubation in severe ARDS. Still a spectrum of greys and whites. Anaesthesiol Intensive Ther 2016; 48: 61–62. doi: 10.5603/AIT.2016.0010.

the precautions that should have been considered by the authors.

Firstly, regarding equipment and interface, the patient was treated with the Drager Evita XL Ventilator, meaning an ICU-dedicated ventilator. From a clinical point of view, in this case it would have been more clinically valuable for readers if the authors had provided data on the interface used. Such features are of particular importance as differences in dead space between oro-nasal, full-face masks and a helmet could influence optimal synchronization and leakage in a patient with severe tachypnea of 30 breathes per minute as reported [4, 5].

Secondly, the authors have concluded that swift recovery was influenced by high PEEP-NIV strategy. However, this strategy has well known risks, namely: a) high PEEP levels induce leaks and gastric leaks and gastric distention and risk of aspiration, b) large tidal volumes not reported by the authors (800–1200 mL), associated with high airway resistance, low respiratory system compliance, and short inspiratory time, all increasing airway pressure and air entering the stomach [6] and c) the stability of oesophageal sphincter pressure (~20––25 cm H_2O in adults) which, in turn, could vary by due to some pathways leading to gastric content aspiration possibly influenced by opiate toxicity. There is still controversy as to whether heroin-opioids may increase the risk of pulmonary aspiration by decreasing the pressure of oesophageal sphincter-intragastric pressure and hemodynamic compromise (supraventricular arrhythmia).

Thirdly, it is important to underline that the necessary high levels of FiO_2 could also worsen alveolar damage and surfactant production. In this case, the FiO_2 level was lower than 0.60, this figure being the lung toxicity cut off point after 08:45 hours of treatment [7].

Fourthly, the definition of "swift time period of 10 hours is still not broadly accepted. We know from previous studies, that an inability to improve PaO_2/FiO_2 after 1 hour of NIV was a predictor of treatment failure [8, 9]. We consider that for an appropriate extrapolation, it could be necessary to take into account other non-pulmonary factors as neurologic conditions and precise drugs.

Lastly, amiodarone infusion in a patient without severe cardiac arrhythmia with shock seems to be controversial. On the basis of the presented case history, we can assume that the patient was free of dangerous cardiac arrhythmia and the increased heart rate was probably caused by severe hypoxemia, dyspnoea, agitation and/or opiates reversed by naloxone treatment. In these circumstances, a heart rate (HR) of 171 and blood pressure (BP) of 141/71 mm Hg should have been diagnosed as physiological sinus tachycardia, indicating that the improvement of oxygenation should have been effective first line treatment [10]. Moreover, amiodarone with its alveolar toxicity may cause further lung damage and a poorer prognosis [11].

In conclusion, it is necessary to emphasize that although this case report gives one important data on ARDS treatment under strict supervision in the ICU, NIV is contraindicated in severe ARDS patients who are unable to protect their airways' from aspiration. Finally, the swift time period is still controversial.

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Adres do korespondencji:
Szymon Skoczyński
Department of Pneumology, School of Medicine in Katowice,
Medical University of Silesia,
Medyków 14, 40–752 Katowice
e-mail: simon.mds@poczta.fm