

## Comment

In this issue of "Progress in Medicine" we enclose the papers pertaining to the most relevant issues that form our daily routine in the Department of Anesthesiology and Intensive Care, as well as in our Pain Clinic.

One of our most vital priorities in Intensive Care Unit (ICU) is the diagnosis of sepsis and septic shock. Sepsis is a severe, heterogeneous and potentially fatal condition. Its diverse clinical presentation depends on the type of causative factor, magnitude of infection and most of all – on the status of patient's immune system. High specificity and sensitivity is a must when it is necessary to choose between sepsis biomarkers. It allows for maximal shortening of the diagnostic process and early introduction of treatment. One of the topics in the current issue is therefore sepsis markers.

Of great interest are the issues discussed in the article, regarding data on the potential use of stem cells in acute respiratory distress syndrome (ARDS). High mortality and failures of once promising treatment options call for a search for other potent strategies. There are high hopes for mesenchymal stem cells in this regard, due to their potential for differentiation into mature connective tissue cells and both intrinsic and acquired immune system modulation.

Technological progress in electronics resulted in sophisticated devices being commonly used in ICU and Post-operative Care Units (PACU). Noninvasive or minimally invasive hemodynamic monitoring, most importantly stroke volume and cardiac output, is currently indicated not only in critically ill, but also intraoperatively. Here it can serve as diagnostic tool, e.g. facilitate the use of regional anesthesia for procedures where the only mode of anesthesia to date was general. A change from general to safely administered regional anesthesia should result in decrease in frequency of perioperative complications by reducing disadvantages of long-lasting general anesthesia. Noninvasive hemodynamic monitoring ("electrical cardiometry") is a topic of one of the papers presented here.

Two papers are in the area of chronic pain – related issues. Chronic pain affects 27% of population and this number is much more in elderly. Almost 50% of people over 65 years of age suffer from chronic pain. One of the papers describes the application of modern neurodestructive technique (thermolesion) in patients with pharmacological treatment – resistant chronic pain. In the other paper authors describe the application of newly available in Poland opioid – oxycodone in various chronic pain conditions.

Another extremely important issue is postoperative pain, which is still poorly controlled in almost 50% of surgical patients in Poland. Two papers regarding this issue are presented. Pain management after laparoscopic bariatric surgeries is a subject of the first one, while another describes our experience with the use of transversus abdominis plane (TAP) block for postoperative pain management in obstetrics and gynecology.

Multitude of interesting procedures is being performed on a daily basis in our hospital, e.g. extensive reconstructive procedures in Plastic Surgery Clinic. One of the presented articles describes the specific issues regarding anesthesia for prolonged reconstructive surgery.

In this issue of "Progress in Medicine" the anesthesiologists from the Department of Anesthesiology and Intensive Care along with those working in our Pain Clinic share their knowledge and experience, which is based on the up-to-date literature in the area of: acute and chronic pain, modern anesthesia and monitoring and intensive care.

It is our hope that it is favorably accepted and read with interest and that this carefully chosen topics prove handy in Your daily clinical routine.

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