

## CROATIAN INTERNATIONAL PUBLICATIONS

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**Boric K<sup>1</sup>, Boric M<sup>2</sup>, Boric T<sup>3</sup>, Puljak L<sup>1</sup>. Analysis of perioperative pain management in vascular surgery indicates that practice does not adhere with guidelines: a retrospective cross-sectional study. J Pain Res. 2017;10:203-209.**

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**BACKGROUND:** Inadequate treatment of pain related to surgery may be associated with complications and prolonged recovery time and increased morbidity and mortality rates. We investigated perioperative pain management in vascular surgery and compared it with the relevant guidelines for the treatment of perioperative pain. **METHODS:** We conducted a retrospective study on 501 patients who underwent vascular surgery at the University Hospital Split, Croatia. We collected the following data from patients' charts: age, gender, premedication, preoperative patient's physical status, type of surgery, duration of surgery and anesthesia, type of anesthesia, postoperative analgesia, and need for intensive care. We examined departmental procedures to assess adherence to guidelines for perioperative pain management. **RESULTS:** None of the 501 patients' charts recorded information about perioperative pain intensity, 28% of patients did not receive any medication the night before their elective surgical procedures, and 17% of patients did not receive premedication immediately before the procedure. Most patients (66%) did not receive any pain medication in the operating room after surgery. Following surgery, 36% of patients were monitored in the intensive care units, while the rest were released to the ward. Some patients (17%) did not receive any anal-

gesia after surgery. Procedures at the department did not adhere to the current recommendations for perioperative pain management. **CONCLUSION:** The study indicates that management of surgery-related pain in complex vascular procedures at this hospital did not follow guidelines for the management of acute perioperative pain. Our finding that most patients did not receive appropriate analgesia after vascular surgery leads to the conclusion that the institution would benefit from developing guidelines for the management of acute perioperative pain, which should be applied in all cases.

**Vilibic-Cavlek T, Furic A, Barbic L, Tabain I, Stevanovic V, Mlinaric-Galinovic G. Clinical and virological characteristics of hantavirus infections in a 2014 Croatian outbreak. J Infect Dev Ctries. 2017;11(1):73-80.**

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**INTRODUCTION:** Croatia is endemic for hemorrhagic fever with renal syndrome (HFRS), with both Puumala (PUUV) and Dobrava virus (DOBV) documented. Several large outbreaks were recorded in 1995, 2002, and 2012. We analyzed demographic, clinical, laboratory, and virological characteristics of HFRS cases detected in three geographically close natural foci (Ogulin, Slunj, and the Plitvice Lakes surroundings) during the 2014 outbreak. **METHODOLOGY:** From January to December 2014, 122 patients with suspected HFRS were tested for hantavirus IgM/IgG antibodies using an indirect immunofluorescence assay (IFA). Cross-reactive samples were further tested using a western blot (WB). For hospitalized patients from Ogulin area, clinical and laboratory data were analyzed. **RESULTS:** Acute infection was documented in 57 (46.7%) patients, of whom 75.4% were hospi-

talized. Ten (8.2%) patients were found to be IgG seropositive. Patients were 15-69 years of age and predominantly male (74.5%). The outbreak started in winter months, with most cases recorded from May to July (80.7%). The most frequently reported symptoms were fever (96.3%), chills/shivering (62.9%), and lumbar pain (48.1%). Mild clinical form was found in 66.7% patients, moderate in 18.5%, and severe in 14.8% patients (all but one infected with PUUV). One patient died. Using IFA, 48.8% patients showed monotypic antibody response, while in 51.2%, cross-reactive antibodies were found. PUUV was confirmed in 94.7% and DOBV in 5.3% HFRS cases by WB. CONCLUSIONS: Central mountainous Croatian regions are still highly endemic areas for HFRS. A higher percentage of severe PUUV infections could be at least partly associated with a patient's immune status.

**Premuzic V, Perkov D, Smiljanic R, Brunetta Gavranic B, Jelakovic B. The Different Impacts on the Long-Term Survival of Tunneled Internal Jugular Hemodialysis Catheters Based on Tip Position and Laterality. Blood Purif. 2017;43(4):315-320.**

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**BACKGROUND/AIMS:** The aim of this study was to examine the impact of different catheter tip positions on the life of the catheter, dysfunction, infection, and quality of hemodialysis and possible differences between the access site laterality in jugular-tunneled hemodialysis catheters. **METHODS:** Catheters were evaluated for the following parameters: place of insertion, time of insertion, duration of use, and reason for removal. In all patients, the catheter tip position was checked using an X-ray. **RESULTS:** The mean duration of implanted catheters with the tip placed in the cavo-atrial junction and right atrium was significantly longer. There were no differences in catheter functionality at follow-up or complications based on catheter laterality for each catheter tip position. **CONCLUSION:** According to our results, the localization of the catheter tip in superior vena cava still remains the least preferable method. Our results showed that the main factor responsible for better catheter functionality was not laterality but the depth to which the catheter tip is inserted into the body.

**Piljić Burazer M<sup>1</sup>, Mladinov S<sup>2</sup>, Čapkun V<sup>3</sup>, Kuret S<sup>1</sup>, Glavina Durdov M<sup>1</sup>. The Utility of Thyroid Transcription Factor 1 (TTF-1), Napsin A, Excision Repair Cross-Complementing 1 (ERCC1), Anaplastic Lymphoma Kinase (ALK) and the Epidermal Growth Factor Receptor (EGFR) Expression in Small Biopsy in Prognosis of Patients with Lung Adenocarcinoma - A Retrograde Single-Center Study from Croatia. Med Sci Monit. 2017;23:489-497.**

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**BACKGROUND** The present study was carried out in order to evaluate our institutional experience with small biopsy in diagnosis and molecular testing of lung adenocarcinoma. Few specific and predictive markers have been evaluated and correlated with clinicopathologic characteristics and survival in patients with lung adenocarcinoma who received platinum-based chemotherapy. There have not been such reports from Croatia. **MATERIAL AND METHODS** A total of 142 cases of lung adenocarcinoma were retrospectively investigated in small biopsies for the immunohistochemical expression of TTF-1, napsin A, ERCC1, ALK, and the EGFR mutation by real-time polymerase chain reaction (rtPCR). **RESULTS** TTF-1, napsin A, and ERCC1 expression was found in 81%, 78%, and 69% of patients, respectively, and the expressions were not significantly associated with subtype. Expression of ALK was found in 4% and EGFR mutation in 10% of patients. Exon 19 deletions were the most common. Longer survival was significantly associated with TTF-1 positivity ( $p=0.007$ ) and napsin A positivity ( $p=0.026$ ). Higher relative risk of death significantly correlated with positive expression of ERCC1 ( $p=0.041$ ). **CONCLUSIONS** Positive TTF-1 and napsin A expressions in lung adenocarcinoma tissues were useful diagnostic and favorable prognostic parameters. Positive ERCC1 expression was identified as a negative prognostic marker in patients treated with platinum-based chemotherapy. The percentages of EGFR and ALK mutations corresponded to those in previously published reports for Caucasians.