

we obtained detailed medical history (previous diseases, medications, tumour characteristics, blood test results, surgery's details). Completeness of tumour resection was assessed using Simpson Grade. Early reoperation was defined as reoperation during the same hospital stay. We used  $\chi^2$  test for proportional values; *t*-student test, Mann–Whitney *U* test for continuous variables. To determine the potential predictors of early reoperation we used univariate and multivariate logistic regression analyses.

**Results:** A total of 13 (7.34%) patients underwent unplanned early reoperation. Those patients significantly more often had retromastoid craniotomy (25.00% vs. 6.40%;  $p=0.047$ ). And significantly more often suffered from ischemic heart disease (66.67% vs. 6.64%;  $p<0.01$ ) and atrial fibrillation (60% vs. 6.25%;  $p<0.01$ ). Reoperated patients also more often took heparin (50% vs. 6.74%;  $p<0.01$ ) and anticoagulants (66.67% vs. 6.21%;  $p<0.01$ ). In multivariate logistic regression analysis anticoagulants intake (OR: 31.463; 95% CI: 1.139–868.604;  $p=0.04$ ) and retromastoid craniotomy (OR: 6.642; 95% CI: 1.139–38.73;  $p=0.034$ ) remained independently associated with higher risk of early reoperation.

**Conclusion:** Patients who underwent retromastoid craniotomy, those with history of ischemic heart disease or atrial fibrillation and those who take heparin and anticoagulants are more likely to require early reoperation. Retromastoid craniotomy and anticoagulants intake are independent risk factors for early reoperation.

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#### PS095

##### Prevalence of foramen arcuale and its clinical significance: A meta-analysis of 55,985 subjects



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**Aim:** The aim of this study was to deliver the most complex study on the prevalence of the FA and its clinical significance.

**Introduction:** Foramen arcuale (FA) is an osseous prominence formed in place of a sulcus for the vertebral artery on the posterior arch of the atlas. The presence of an FA can make a threat during neurosurgery by giving a false notion of a wider posterior arch when viewed dorsally during C1 lateral mass screw insertion.

**Methods:** An comprehensive search of the major electronic databases was performed in order to find and identify all studies which reported relevant data on the FA. No date or language restrictions were applied. Data on the prevalence, type (complete

and incomplete), side, gender, laterality, and morphometrics of the FA were extracted and pooled into a meta-analysis.

**Results:** A total of 127 studies ( $n=55,985$  subjects) were included into the quantitative analysis. The overall pooled prevalence of a complete FA was 9.1% (95%CI: 8.2–10.1), while the overall pooled prevalence of an incomplete FA was 13.6% (95%CI: 11.2–16.2). The complete FA was found to be most prevalent in North American (11.3%) and European (11.2%) populations, and least prevalent among Asian (7.5%) populations, especially Chinese (4.4%) and South Koreans (5.8%). In the presence of a complete FA, a contralateral FA (complete or incomplete) was found in 53.1% of cases.

**Conclusion:** The FA is a commonly present anatomical structure. Awareness of a complete variant of the FA during procedures performed on the atlas vertebra is essential in reducing the risk of iatrogenic injury. Therefore, risk for the presence of an FA should be considered by surgeons prior to procedures on the atlas in each patient according to gender and ethnic group. As such, we highly advise preoperative screening with CT as the gold standard for finding the presence of an FA.

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#### PS136

##### Quality of Life and aortobifemoral bypass – Importance of the hypogastric arteries



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**Aim:** Evaluate SD after AFB and assess the importance of patent hypogastric arteries before the procedure.

**Introduction:** The aortobifemoral bypass (AFB) is one of the best options to revascularize patients with Aortoiliac Occlusive Disease (AIOD). The impact of this procedure in sexual function (SF) is unpredictable, with 20–80% of the patients reporting sexual dysfunction (SD) after surgery. There's still insufficient data to safely predict the development of SD after AFB and what the role of hypogastric arteries.

**Methods:** The study includes only male population submitted to AFB due to AIOD. Patients with major amputations after the surgery were excluded. The development of SD was evaluated by phone call. The quality of life before and after the procedure was evaluated by a standardized index score questionnaire (15D). Pre-operative patency of hypogastric arteries was appraised by assessing the patients imaging file. The arteries with direct anterograde flow were considered patent.

**Results:** Of a total of 53 patients, 40 were included in the study – exclusion causes were intrahospital death, natural cause death and major amputation. In the included group, 37% reported worsening, 26% improved and 37% did not notice any change in SF after surgery. If at least one of the hypogastric arteries was patent before surgery, 58% described worsening in SF compared to only 13% in the group with no sustained anterograde flow to the hypogastric arteries. 92% of the patients was not warned of the possibility of SD after surgery, being that 26% of these would have refused the procedure if they knew.

**Conclusion:** SD is a prevalent and often overlooked complication after open aortoiliac revascularization and it remains a major taboo in the surgeon/patient relation. The existence of at least one hypogastric artery with reserved anterograde flow before

surgery can strongly predict a higher risk of sexual dysfunction after surgery.

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## PS197

### Compensatory renal overgrowth after unilateral nephrectomy in children

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**Aim:** The aim of the study is to investigate the intensity of renal overgrowth after unilateral nephrectomy in children's population, as well as to check dependency between kidney's dimensions and patient's age.

**Introduction:** Solitary kidney after unilateral nephrectomy tends to overgrow. In adult population the dynamic of overgrowth and maximal dimensions are identified. In childhood there are no described patterns of the process of solitary kidney overgrowth.

**Methods:** Patients who had undergone unilateral nephrectomy in the University Children's Hospital of Cracow were enrolled. The length of the solitary kidney was compared with control group which was based on ultrasound examination of the kidney (left  $n = 1601$ , right  $n = 1635$ ) performed in the same clinic in children without kidney disease. All examinations were carried out with Philips Epiq 5G ultrasound unit with convex probe C5-1 MHz by a single physician (PS).

The comparison was analysed with t-student test for one or two means. 18 children (7 males) from the birth to the age of 17 who underwent in total 48 ultrasound examination after the nephrectomy were enrolled.

**Results:** There was significant difference between the mean of the kidney's length in patients after unilateral nephrectomy and control group. The difference was the most explicit in the groups at the age from 8 to 13 for the right kidney (difference range from 13 to 22 mm,  $p < 0.05$ ) and in the groups at the age from 8 to 12 for the left kidney (difference range from 11 to 19 mm,  $p < 0.05$ ). Solitary kidney in children after nephrectomy is significantly larger than in the control group.

**Conclusion:** The dynamic of solitary kidney overgrowth in children should be taken into consideration while performing the sonographic examination. Chronic kidney disease may be suspected when overgrowth of the solitary kidney is not present. Further research dealing with the dynamic of compensatory kidney overgrowth in children is indicated.

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Internal Medicine Plenary Session  
Saturday, September 16th, 14h00

## PS067

### Cardiac effects of Ledipasvir plus sofosbuvir for Hepatitis C treatment in thalassemia



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**Aim:** This study was designed to evaluate the effects of Ledipasvir plus Sofosbuvir on cardiac function of thalassemia patients.

**Introduction:** Hepatitis C (HCV) infection is much more prevalent in thalassemia patients because of blood transfusion. Thalassemia patients may also have cardiac abnormalities due to congenital problems, anemia, and increased burden of iron in their myocardium. HCV treatment has been revolutionized after introducing new direct acting antiviral (DAA) drugs, and data is limited about effects of these new drugs on patients' cardiac function.

**Methods:** In this study HCV-infected thalassemia patients which were selected for treatment with DAAs in HepCC-2 trial (NCT03061032) were evaluated prospectively. Fixed dose daily tablets of 90 mg-Ledipasvir plus 400 mg-Sofosbuvir (12/24week,  $\pm$ ribavirin) was prescribed for patients. All patients were evaluated by a unique echocardiography fellowship for collecting the echocardiography findings of before and after the treatment. Then effects of mentioned drugs on patients' cardiac function were evaluated.

**Results:** Thirty-two patients with mean age of  $24.2 \pm 6.4$  years were evaluated. The treatment response, which was evaluated by rapid virological response and sustained virological response rates, was 100%. The patients' left ventricular end-systolic diameter (LVESD) and volume (LVESV), global longitudinal strain (GLS) of LV and average, and right ventricle (RV) size were significantly increased after finishing the treatment ( $P < 0.05$ ). Changes in abovementioned parameters were not correlated with patients' myocardium iron load ( $P > 0.05$ ). There were no significant differences in before-after comparison of other echocardiographic parameters ( $P > 0.05$ ).

**Conclusion:** Ledipasvir-Sofosbuvir combination therapy was safe for our HCV-infected thalassemia patients and cause no serious cardiac events. But minimal changes in strain, size, and volume of left ventricle, and size of right ventricle may refer to needing more precise cardiac evaluations in these patients. Also, our patients' ejection fraction remained unchanged. Hence, we suggest more specific and long-term echocardiographic evaluations before and after treatment, if needed.<sup>1-3</sup>

## References

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