

编号: YY001-20230102001

标题: Diagnosis of fast-growing thoracic aneurysm with microscopic evidence of dissection over 6 months follow-up in an asymptomatic middle aged gentleman: a case report

简介: Background: Thoracic aortic aneurysm (TAA), is a pathological dilatation of the aortic segment with the tendency to expand, dissect or rupture, and risk of mortality. The progression rate is mainly slow. As the risk of rupture increases with the size of the aortic diameter, it is important to diagnose TAA appropriately to prevent mortality. Case presentation: Here, we present a case with a fast-growing TAA, complicated by subclinical dissection in a middle-aged gentleman, associated with non-compaction left ventricle, diagnosed 6 months after the first diagnosis of this co-occurrence, successfully managed by an uneventful surgical procedure. The pathological examination was the key to the diagnosis of this concealed phenomenon, i.e. a fast-growing aortic aneurysm complicated by subclinical dissection. Conclusion: This case report emphasizes the importance of close follow-up of patients with fast-growing TAA for considering remote possibility of this silent life-threatening disease; subclinical dissecting aneurysm, especially in patients with other cardiac comorbidities. Although imaging modalities can help accurate diagnosis, in cases with fast-growing TAA, we should not wait for imaging signs of dissection and/or rupture.

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编号: YY001-20230102002

标题: Aging Alters the Aortic Proteome in Health and Thoracic Aortic Aneurysm

简介: Background: Aging enhances most chronic diseases but its impact on human aortic tissue in health and in thoracic aortic aneurysms (TAA) remains unclear. Methods: We employed a human aortic biorepository of healthy specimens (n=17) and those that underwent surgical repair for TAA (n=20). First, we performed proteomics comparing aortas of healthy donors to aneurysmal specimens, in young (ie, <60 years of age) and old (ie, ≥60 years of age) subjects. Second, we measured proteins, via immunoblotting, involved in mitophagy (ie, Parkin) and also mitochondrial-induced inflammatory pathways, specifically TLR (toll-like receptor) 9, STING (stimulator of interferon genes), and IFN (interferon)-β. Results: Proteomics revealed that aging transformed the aorta both quantitatively and qualitatively from health to TAA. Whereas young aortas exhibited an enrichment of immunologic processes, older aortas exhibited an enrichment of metabolic processes. Immunoblotting revealed that the expression of Parkin directly correlated to subject age in health but inversely to subject age in TAA. In TAA, but not in health, phosphorylation of STING and the expression of IFN-β was impacted by aging regardless of whether subjects had bicuspid or tricuspid valves. In subjects with bicuspid valves and TAAs, TLR9 expression positively correlated with subject age. Interestingly, whereas phosphorylation of STING was inversely correlated with subject age, IFN-β positively correlated with subject age. Conclusions: Aging transforms the human aortic proteome from health to TAA, leading to a differential regulation of biological processes. Our results suggest that the development of therapies to mitigate vascular diseases including TAA may need to be modified depending on subject age.

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编号: YY001-20230102003

标题: Impacts of Telomeric Length, Chronic Hypoxia, Senescence, and Senescence-Associated Secretory Phenotype on the Development of Thoracic Aortic Aneurysm

简介: Thoracic aortic aneurysm (TAA) is an age-related and life-threatening vascular disease. Telomere shortening is a predictor of age-related diseases, and its progression is associated with premature vascular disease. The aim of the present work was to investigate the impacts of chronic hypoxia and telomeric DNA damage on cellular homeostasis and vascular degeneration of TAA. We analyzed healthy and aortic aneurysm specimens (215 samples) for telomere length (TL), chronic DNA damage, and resulting changes in cellular homeostasis, focusing on senescence and apoptosis. Compared with healthy thoracic aorta (HTA), patients with tricuspid aortic valve (TAV) showed telomere shortening with increasing TAA size, in contrast to genetically predisposed bicuspid aortic valve (BAV). In addition, TL was associated with chronic hypoxia and telomeric DNA damage and with the induction of senescence-associated secretory phenotype (SASP). TAA-TAV specimens showed a significant difference in SASP-marker expression of IL-6, NF- κ B, mTOR, and cell-cycle regulators (γ H2AX, Rb, p53, p21), compared to HTA and TAA-BAV. Furthermore, we observed an increase in CD163+ macrophages and a correlation between hypoxic DNA damage and the number of aortic telocytes. We conclude that chronic hypoxia is associated with telomeric DNA damage and the induction of SASP in a diseased aortic wall, promising a new therapeutic target.

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编号: YY001-20230102004

标题: Identification of Risk Factors and Development of Predictive Risk Score Model for Mortality after Open Ruptured Abdominal Aortic Aneurysm Repair

简介: Background and Objectives: Despite the relatively large number of publications concerning the validation of these models, there is currently no solid evidence that they can be used with absolute precision to predict survival. The goal of this study is to identify preoperative factors that influenced 30-day mortality and to create a predictive model after open ruptured abdominal aortic aneurysm (RAAA) repair. Materials and Methods: This was a retrospective single-center cohort study derived from a prospective collected database, between 1 January 2009 and 2016. Multivariate logistic regression analysis was used to identify all significant predictive factors. Variables that were identified in the multivariate analysis were dichotomized at standard levels, and logistic regression was used for the analysis. To ensure that dichotomized variables were not overly simplistic, the C statistic was evaluated for both dichotomized and continuous models. Results: There were 500 patients with complete medical data included in the analysis during the study period. Of them, 37.6% were older than 74 years, and 83.8% were males. Multivariable logistic regression showed five variables that were predictive of mortality: age \geq 74 years (OR = 4.01, 95%CI 2.43-6.26), loss of consciousness (OR = 2.21, 95%CI 1.11-4.40), previous myocardial infarction (OR = 2.35, 95%CI 1.19-4.63), development of ventricular arrhythmia (OR = 4.54, 95%CI 1.75-11.78), and DAP \leq 60 mmHg (OR = 2.32, 95%CI 1.17-4.62). Assigning 1 point for each variable, patients were stratified according to the preoperative RAAA mortality risk score (range 0-5). Patients with 1 point suffered 15.3% mortality and 3 points 68.2% mortality, while all patients with 5 points died. Conclusions: This preoperative RAAA score identified risk factors readily assessed at the bedside and provides an accurate prediction of 30-day mortality after open repair of RAAA.

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编号: YY001-20230102005

标题: Double-edged sword of diabetes mellitus for abdominal aortic aneurysm

简介: Introduction: Diabetes mellitus (DM) has been proved to contribute to multiple comorbidities that are risk factors for abdominal aortic aneurysm (AAA). Remarkably, evidences from epidemiologic studies have demonstrated a negative association between the two disease states. On the other hand, hyperglycemic state was linked to post-operative morbidities following AAA repair. This review aims to provide a thorough picture on the double-edged nature of DM and major hypoglycemic medications on prevalence, growth rate and rupture of AAA, as well as DM-associated prognosis post AAA repair. Methods: We performed a comprehensive search in electronic databases to look for literatures demonstrating the association between DM and AAA. The primary focus of the literature search was on the impact of DM on the morbidity, enlargement and rupture rate, as well as post-operative complications of AAA. The role of antidiabetic medications was also explored. Results: Retrospective epidemiological studies and large database researches associated the presence of DM with decreased prevalence, slower expansion and limited rupture rate of AAA. Major hypoglycemic drugs exert similar protective effect as DM against AAA by targeting pathological hallmarks involved in AAA formation and progression, which were demonstrated predominantly by animal studies. Nevertheless, presence of DM or postoperative hyperglycemia was linked to poorer short-term and long-term prognosis, primarily due to greater risk of infection, longer duration of hospital stays and death. Conclusion: While DM is a positive factor in the formation and progression of AAA, it is also associated with higher risk of negative outcomes following AAA repair. Concomitant use of antidiabetic medications may contribute to the protective mechanism of DM in AAA, but further studies are still warranted to explore their role following AAA repair.

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编号: YY001-20230102006

标题: Beliefs about Pain Control in Patients after Abdominal Aortic Aneurysm Surgery-A Preliminary Study

简介: Introduction: Pain-control beliefs significantly influence the perception of disease and, therefore, may influence the treatment outcomes of surgical patients. The sense of control is related to the sense of agency and the ability to influence one's own life and environment. This construct may be external or internal. The belief that pain control depends on internal or external factors can depend on many variables. This may be influenced by socio-demographic and clinical characteristics, as well as the source and cause of pain. The aim of the study was the assessment of the relationship between the intensity of postoperative pain and beliefs about pain control in patients after AAA surgery and assessment of the relationship between socio-demographic and clinical variables and beliefs about pain control in patients after AAA surgery. Materials and methods: The research material consisted of 42 patients aged 57 to 85, hospitalized at the Department of Cardiac Surgery and Vascular Surgery of the University Clinical Center in Gdańsk. The research was conducted from March to September 2020. The study uses a survey technique based on a standardized research tool: the Polish version of the BPCQ (The Beliefs about Pain Control Questionnaire), the NRS (Numerical Rating Scale), and the author's own questionnaire

that allows for the collection of socio-demographic data. Results: The highest intensity of pain was observed in subjects with ruptured AAA $H(2) = 6.19$; $p < 0.05$ and subjects who underwent classic surgery $Z = -2.95$; $p < 0.05$ (non-parametric Mann-Whitney U test). Subjects with ruptured aneurysms are less convinced about the influence of internal factors on pain control $H(2) = 5.26$; $p < 0.05$. The respondents' conviction about the influence of doctors on pain control increased together with their age, $rHO = 0.38$, $p < 0.05$. Conclusion: Pain intensity after surgery did not significantly correlate with beliefs about pain control. Patients with ruptured AAA are less convinced about the influence of internal factors on pain control. With age, patients have more confidence in their doctors than in themselves to control their pain.

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编号: **YY001-20230102007**

标题: Numerical analysis of biothermal-fluids and cardiac thermal pulse of abdominal aortic aneurysm

简介: Abdominal aortic aneurysms are serious and difficult to detect, conditions can be deadly if they rupture. In this study, the heat transfer and flow physics of Abdominal Aortic Aneurysm (AAA) were discussed and associated with cardiac cycle to illustrate the cardiac thermal pulse (CTP) of AAA. A CTP and infrared thermography (IRT) evaluation-based on AAA and abdomen skin surface detection method was proposed, respectively. Infrared thermography (IRT) is a promising imaging technique that may detect AAA quicker and cheaper than other imaging techniques (as biomarker). From CFD rigid-wall and FSI Analysis, the transient bioheat transfer effect resulted in a distinct thermal signature (circular thermal elevation) on the temperature profile of midriff skin surface, at both regular body temperature and supine position, under normal clinical temperature. However, it is important to note that thermography is not a perfect technology, and it does have some limitations, such as lack of clinical trials. There is still work to be done to improve this imaging technique and make it a more viable and accurate method for detecting abdominal aortic aneurysms. However, thermography is currently one of the most convenient technologies in this field, and it has the potential to detect abdominal aortic aneurysms earlier than other techniques. CTP, on the other hand, was used to examine the thermal physics of AAA. In CFD rigid-wall Analysis, AAA had a CTP that only responded to systolic phase at regular body temperature. In contrast, a healthy abdominal aorta displayed a CTP that responded to the full cardiac cycle, including diastolic phase at all simulated cases. Besides, the findings from FSI Analysis suggest the influence of numerical simulation techniques on the prediction of thermal physics behaviours of AAA and abdominal skin surface. Lastly, this study correlated the relationship between natural convective heat transfer coefficient with AAA and provided reference for potential clinical diagnostic using IRT in clinical implications.

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编号: **YY001-20230102008**

标题: Open thoracoabdominal aortic aneurysm repair in a patient with myasthenia gravis

简介: Myasthenia gravis (MG) is an autoimmune neuromuscular junction disorder and rarely coexists with aortic aneurysms requiring open repair. A 66-year-old patient with MG underwent extended thoraco-abdominal aortic aneurysm (TAAA) repair 16 years after onset of type-B acute aortic dissection. At 62 years, the patient was diagnosed with MG (MGFA class IIIa) from positive

anti-acetylcholine receptor antibody without thymoma. Preoperatively, MG was well-controlled by prednisolone, cyclosporin and pyridostigmine. Extent II TAAA repair was performed under general anaesthesia maintained by total intravenous anaesthesia. Transcranial motor-evoked potential and somatosensory-evoked potential were applied to monitor intraoperative spinal cord ischaemia and muscle weakness. Amplitudes of motor-evoked potential and somatosensory-evoked potential attenuated intraoperatively but normalized after reperfusion from the reconstructed tube graft. Perioperative steroid coverage was given against surgical stress. The patient was weaned from mechanical ventilatory support on postoperative day 7. No signs of spinal cord ischaemia or muscle weakness were seen.

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编号: YY001-20230102009

标题: Effects of Suprarenal Aortic Cross-Clamping and Adjunctive Renal Reconstruction on Outcomes of Open Abdominal Aortic Aneurysm Repair

简介: Purpose: To analyze our contemporary experience in open abdominal aortic aneurysm (AAA) repair. We focused on the effects of suprarenal (SR) aortic cross-clamping and adjunctive renal reconstruction (RR) on postoperative outcomes. Methods: We retrospectively reviewed our institutional data of 141 consecutive patients who received elective open AAA repair between January 2014 and December 2020. Results: Seventy-five procedures were performed with SR aortic cross-clamping, 20 of which required an adjunctive RR. Patients in the SR group had a higher incidence of postoperative acute kidney injury (AKI) (18.7% vs. 7.6%, $P = 0.045$). There were no significant between-group differences in other major complications. The 30-day mortality rate in the infrarenal (IR) and SR groups was 0% and 1.3%, respectively. After a median follow-up of 33 months, the rates of chronic renal decline in the IR (18.2%) and SR (21.3%) groups were similar. All reconstructed renal arteries were patent without reintervention. The 5-year overall survival rate in the IR and SR groups was 88.8% and 83.2%, respectively. Conclusions: SR aortic cross-clamping was associated with postoperative AKI but neither SR aortic cross-clamping nor RR affected the long-term renal function or mortality. Open repair remains an essential option for patients with AAA, especially those with complex anatomy.

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编号: YY001-20230102010

标题: Patient-Tailored Approach for Diagnostics and Treatment of Mycotic Abdominal Aortic Aneurysm

简介: Background: The existing literature on mycotic aortic aneurysm is scarce and focuses on treatment. This study evaluates the clinical characteristics, diagnostics, treatment and outcome of patients with a mycotic abdominal aortic aneurysm treated in a tertiary referral center. Methods: A retrospective cohort study was conducted including all patients with a proven mycotic abdominal aortic aneurysm admitted between May 2010 and July 2020. Primary outcome was mortality and secondary outcome included complications such as vascular graft/endograft infection. Results: Twenty-four patients with a mycotic abdominal aortic aneurysm were included. Patients had a mean age of 68 ± 9 years and 20 (83%) were male. Thirteen patients (57%) had positive preoperative blood cultures. Streptococcus pneumoniae was most frequently isolated by blood culturing, pus, and vascular, or perivascular tissue cultures

(17%). In 19 (83%) patients the mycotic abdominal aortic aneurysm was located infrarenally, in three (13%) patients suprarenally, and in one (4%) patient juxtarenally. Median follow-up was 20 (7-42) months. In 8 patients (33%) vascular graft and or endograft infection was diagnosed after surgical repair. Ten (42%) patients died during the follow-up period. The main causes of death were vascular graft/endograft infection-related (n = 4) and rupture of the mycotic abdominal aortic aneurysm (n = 3). No patient characteristics could be identified as predictive for mortality. Conclusions: This study shows a large variation in presentation, diagnostic approaches, and surgical and antibiotic treatment of mycotic abdominal aortic aneurysm. The detailed information about the diagnostic approaches to this rare disease and its antibiotic and/or other treatment contributes to existing knowledge of mycotic abdominal aortic aneurysm. Because of the individual variation patients should be discussed in a multidisciplinary team with a vascular surgeon, infectious disease specialist, and clinical microbiologist.

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编号: **YY001-20230102011**

标题: Large abdominal aortic aneurysm presented with concomitant acute lumbar disc herniation - a case report

简介: The purpose of this case report was to describe chiropractic management of acute lumbar disc herniation in a patient with a large abdominal aortic aneurysm. A 72-year-old male patient presented with low back pain and right lower leg numbness for 12 months. A review of full-spine X-ray and lumbar MRI revealed moderate spondylosis at L2-5, moderate lumbar scoliosis, and a 7.15 cm abdominal aortic aneurysm (AAA). Given the minimum 2-weeks of referral waiting time to receive treatment for AAA, the patient received chiropractic treatment with a hybrid rehabilitation to address the disc herniation causing severe physical disability. Through the treatments, the patient's pain was significantly alleviated with careful consideration of potential risk factors associated with AAA. In addition, the acute disc herniation was successfully managed by a series of chiropractic treatments before and after the operation for AAA. This case supports that low back pain in patients with AAA can be managed by manual therapy, in contrast to a widespread belief that manual therapy is contraindicated in AAA. More case reports of AAA patients with low back pain are warranted to assess the effectiveness and safety of manual therapy along with surgical treatment for AAA.

全文链接: https://pan.ckcest.cn/rcservice//doc?doc_id=110156

编号: **YY001-20230102012**

标题: The Effect of Blood Transfusion during Air Medical Transport on Transport Times in Patients with Ruptured Abdominal Aortic Aneurysm

简介: Background: Patients presenting with a diagnosis of ruptured abdominal aortic aneurysm (RAAA) to community hospitals must be transported to tertiary care centers, where necessary resources are available. Unfortunately, guidelines for treatment of RAAA lack high-level evidence on the optimal resuscitation of RAAA patients during transport. We hypothesized that transfusion of packed red blood cells (PRBCs) during transport would not delay transport times in patients with RAAA. Methods: We performed a retrospective analysis of a prospective registry including prehospital data of patients with RAAA presenting to a single academic hospital in Western Pennsylvania between 2001 and 2019. Our primary outcomes were prehospital transport times:

"transport interval" and "total interval." "Transport interval" is the duration from patient pickup at the outside hospital (OSH) to arrival at the receiving facility. "Total interval" is the duration from dispatch of the air medical transport to arrival of the patient to the receiving facility. We then compared two groups of patients, stratified by the receipt of PRBCs in transit, by reporting mean difference (95% confidence interval: CI) for continuous variables and percent difference (95% CI) for categorical variables. We performed two multivariate linear regression models to test if there was any effect of the receipt of PRBCs in transit on transport times. Results: We included 271 patients with RAAA transported by our air ambulance system who underwent an operation at the receiving facility, 99 (37%) of whom received PRBCs in transit. Mean \pm standard deviation (SD) of the total intervals were 67 ± 28 and 71 ± 42 minutes, among patients who received or did not receive PRBCs in transit respectively, with no significant difference ($p = 0.437$). Following adjusted analysis, the receipt of PRBCs during transport was not associated with increased transport times, after accounting for age, hypotension, endovascular aneurysm repair (EVAR), and PRBC transfusion at the OSH. Conclusion: PRBC transfusion during air medical transport in patients with RAAA did not delay transport times.

全文链接: https://pan.ckcest.cn/rcservice//doc?doc_id=110157

编号: YY001-20230102013

标题: Abdominal Aortic Screening Is a Priority for Health in Smoker Males: A Study on Central Italian Population

简介: Abdominal aortic aneurysm (AAA) is a major public health problem. In the last decade, in some European countries, abdominal aortic screening (AAS) is emerging as a potential prevention for the rupture of AAA. The goals of our study were to estimate AAA prevalence and risk factors in males and females in a central Italian population, also defining the cost-effectiveness of AAS programs. A pilot study screening was conducted between 1 January 2015 and 31 December 2019 in the municipality of Teramo (Abruzzo Region, Italy) in a group of men and women, ranging from the age of 65 to 79, who were not previously operated on for AAA. The ultrasound was performed by means of Acuson sequoia 512 Simens with a Convex probe. The anterior posterior of the infra-renal aorta was evaluated. The odds ratio values (ORs) were used to evaluate the risk of AAA, and the following determinants were taken into consideration: gender, smoke use, hypertension, and ischemic heart disease. We also estimated the direct costs coming from aneurysmectomy (surgical repair or endovascular aneurysms repair-EVAR). A total of 62 AAA (2.7%, mean age 73.8 ± 4.0) were diagnosed, of which 57 were in men (3.7%, mean age 73.6 ± 4.0) and 5 were in women (0.7%, mean age 74.3 ± 4.1). Male gender and smoke use are more important risk factors for AAA ≥ 3 cm, respectively: OR = 5.94 (2.37-14.99, $p < 0.001$) and OR = 5.21 (2.63-10.30, $p < 0.000$). A significant increase in OR was noted for AAA ≥ 3 cm and cardiac arrhythmia and ischemic heart disease, respectively: OR = 2.81 (1.53-5.15, $p < 0.000$) and OR = 2.76 (1.40-5.43, $p = 0.006$). Regarding the cost analysis, it appears that screening has contributed to the reduction in costs related to urgency. In fact, the synthetic indicator given by the ratio between the DRGs (disease related group) relating to the emergency and those of the elective activity went from 1.69 in the year prior to the activation of the screening to a median of 0.39 for the five-year period of activation of the screening. It is important to underline that the results of our work confirm that the screening activated in our territory has led to a reduction in the expenditure for AAA emergency interventions, having increased the planned interventions. This

must be a warning for local stakeholders, especially in the post-pandemic period, in order to strengthen prevention.

全文链接: https://pan.ckcest.cn/rcservice//doc?doc_id=110158

编号: YY001-20230102014

标题: Patient-Reported Outcomes of Yearly Imaging Surveillance in Patients Following Endovascular Aortic Aneurysm Repair

简介: Little is known about the impact of standardized imaging surveillance on anxiety levels and well-being of patients after endovascular aortic aneurysm repair (EVAR). We hypothesize that patient anxiety levels increase just before receiving the imaging results compared with standard anxiety levels. **Methods:** Prospective cohort study from November 2018 to May 2020 including post-EVAR patients visiting the outpatient clinics of 4 Dutch hospitals for imaging follow-up. The Patient-Reported Outcomes Measurement Information System (PROMIS) was used. Patients completed the PROMIS Anxiety v1.0 Short Form (SF) 4a, PROMIS-Global Health Scale v1.2, and PROMIS-Physical Function v1.2 SF8b at 2 time points: prior to the result of the imaging study (T1: pre-visit) and 6-8 months later (T2: reference measurement). Mean T-scores at T1 were compared to T2, and T2 to the general 65+ Dutch population. **Results:** Altogether 342 invited patients were eligible, 214 completed the first questionnaire, 189 returned 2 completed questionnaires and 128 patients did not participate. Out of 214 respondents, 195 were male (91.1%) and the mean (standard deviation) age was 75.2 (7.0) years. There were no significant differences between T1 and T2 in anxiety levels (0.48; 95% confidence interval[CI] -0.42-1.38), global mental health (0.27; 95% CI -0.79-0.84), global physical health (0.10; 95% CI -0.38-1.18) and physical function (0.53; 95% CI -0.26-1.32). Compared with the 65+ Dutch population, at T2 patients experienced more anxiety (3.8; 95% CI 2.96-5.54), had worse global physical health (-3.2; 95% CI -4.38 - -2.02) and physical function (-2.4; 95% CI -4.00 - -0.80). Global mental health was similar (-1.0; 95% CI -2.21 - 0.21). **Conclusions:** Post-EVAR patients do not experience more anxiety just before receiving surveillance imaging results than outside this period, but do suffer from more anxiety and worse physical outcomes than the 65+ Dutch population.

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编号: YY001-20230102015

标题: Preliminary Assessment of Intra-Aneurysm Sac Pressure During Endovascular Aneurysm Repair as an Early Prognostic Factor of Aneurysm Enlargement

简介: Purpose: Numerous cases of abdominal aortic aneurysm (AAA) enlargement, and even rupture, despite endovascular aneurysm repair (EVAR), have been documented. This has been linked to increased aneurysm sac pressure (ASP). We decided to conduct further research with the aim to identify correlations between ASP during EVAR and subsequent aneurysm enlargement. **Patients and methods:** This experimental prospective study included 30 patients undergoing EVAR of infrarenal AAAs. Invasive ASP measurements were done using a thin pressure wire. Aortic pressure (AP) was measured using a catheter placed over the wire. Systolic pressure index (SPI), diastolic pressure index (DPI), mean pressure index (MPI), and pulse pressure index (PPI) were calculated both for ASP and AP. The results of follow-up computed tomography angiography (CTA) at 3 months were compared with baseline CTA findings. **Results:** During EVAR, a significant reduction was observed for SPI (from 98% to 61%), DPI (from 100% to 87%), MPI

(from 99% to 74%), and PPI (from 97% to 34%). There were no significant correlations of pressure indices with an aneurysm diameter, cross-sectional area, velocity, thrombus shape and size, number of patent lumbar arteries, length and diameter of aneurysm neck, diameter of the inferior mesenteric artery, as well as diameter and angle of common iliac arteries. On the other hand, aneurysm neck angulation was significantly inversely correlated with reduced PPI. After combining CTA findings with pressure measurements, we identified a positive correlation between PPI and aneurysm enlargement (ratio of the cross-sectional area at the widest spot at baseline and at 3 months after EVAR). Conclusion: The study showed that ASP can be successfully measured during EVAR and can facilitate the assessment of treatment efficacy. In particular, PPI can serve as a prognostic factor of aneurysm enlargement and can help identify high-risk patients who remain prior monitoring.

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