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The Effects of Mental Fatigue on Surgical Performance

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with 95% Confidence Interval (CI) and were compared. HRQOL were compared between CBT patients and the control group. Also, patients were stratified by volume tumor in accordance with 3DVR and by Shamblin stage, being compared posteriorly. Differences between medians were analyzed with the Mann-Whitney U test and all statistical test were 2-sided.

Results: In the study group: mean age was 55 years, females were more frequently affected 19 (83%). Shamblin I was identified in 9% of patients, Shamblin II in 52% and Shamblin III in 39%. CBT laterality were 57% right, 34% left and 9% bilateral tumors. The eight domains that comprise the SF-36 questionnaire were statistically significant when compared to the control group. Volume tumor were not related with HRQOL. However, Shamblin II and III patients had worse HRQOL.

Conclusion: Significant differences were found in all SF-36 domains comparing CBT patients and control subjects, supporting the fact that CBT has negative effects in general HRQOL.

In spite of most of the patients were asymptomatic at diagnosis, it seems that the fact of having a neck mass leads to a decrease in the HRQoL regardless of tumour volume. In the other hand, Shamblin II and III patients had significantly worse physical function and physical role, compared with Shamblin I, establishing that carotid artery involvement contribute to a worse HRQoL.

Disclosure: Nothing to disclose

P-096 Nationwide Study of the Treatment of Mycotic Abdominal Aortic Aneurysms Comparing Open and Endovascular Repair in The Netherlands

Abdominal Aortic Diseases

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Introduction: Mycotic aneurysms of the abdominal aorta (MAAA) can be treated by open repair (OR) or endovascular aneurysm repair (EVAR). This nationwide study provides an overview of the situation of MAAA treatment in The Netherlands in 2016.

Methods: A retrospective cohort study was conducted with all centres that registered aortic abdominal aneurysms in the Dutch Surgical Aneurysm Audit (DSAA) of 2016. Questionnaires on 1-year outcomes were sent to all centres that treated MAAA patients. The primary aim was to determine 30-day and 1-year mortality and morbidity of OR- and EVAR-treated patients. Morbidity was determined by the need for reoperations and the number of readmissions to the hospital. The questionnaire also included additional questions about pre-, per- and postoperative aspects.

Results: 26 MAAA were detected in the DSAA database of 2016, resulting in an incidence of 0.7% of all registered AAA. 9 centres did not provide permission for participation within the study period. 13 patients (50.0%) were treated with OR; of these, 1 (7.7%) died within 30 days.

Reinterventions within 30 days were needed in 2 OR-patients (15.4%) and 2 EVAR-patients (15.4%). 2 patients (15.4%) in the OR-group and 1 patient (7.7%) in the EVAR-group were readmitted to the hospital within 30 days. In total, 1-year outcomes of 23 patients were available. In the OR group, 1 patient (9.1%) died in the postoperative period till 1 year. 2 patients (18.2%) treated with OR and 3 (25.0%) treated with EVAR required a reintervention in this period which differed regarding the complexity. In both groups, 4 patients (OR: 36.4%, EVAR: 33.3%) were readmitted to the hospital within 1 year postoperatively. Management of MAAA regarding method of diagnosis, type of OR and duration of antibiotic treatment varied across the country.

Conclusion: MAAA is a rare but challenging disease, with a large heterogeneity in patient characteristics and management. Both OR and EVAR treated patients show acceptable results in terms of mortality and morbidity after 30 days and 1 year follow-up. EVAR may be considered in patients with an MAAA suitable for both treatment options.

Disclosure: Nothing to disclose

P-097 The Effects of Mental Fatigue on Surgical Performance — A Systematic Review

Miscellaneous

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Introduction: The effect of mental fatigue and sleep deprivation on surgeons has been questioned for decades. While other high-stake professions such as aviation and military have already established guidelines to restrict work hours, this trend has yet to reach the surgical profession. This study aimed to give a complete and up-to-date overview of the existing literature regarding the impact of mental fatigue on surgical performance, in order to facilitate further research and the development of guidelines.

Methods: A systematic review was performed searching Medline and Embase. 31 studies regarding the relation between fatigue and surgical performance, using both real-life surgery and simulator studies, were included. Articles based on patients as well as on surgeons and surgical residents were included. Articles based on stress, muscle fatigue, learning, work hour restrictions or regulations were excluded from analysis, as were studies on medical students and non-surgical professions. The methodological quality of the included studies was assessed using the Newcastle-Ottawa Scale. The studies were analyzed using descriptive statistics.

Results: None of the studies on real-life surgery found a correlation between fatigue and surgical performance, but 45% of simulator studies found a negative correlation

between fatigue and surgical performance, and 22% of simulator studies found a positive correlation. 8% of surgeon-based studies found a negative correlation, while 44,5% of intern-based studies did.

Conclusion: In simulator studies, the effects of fatigue were mixed, but in real-life surgery, fatigue appears not to affect surgical performance. An explanation for this difference between simulator and real-life studies may lie in the fact that in real-life operations the stakes are higher and surgeons put in more effort to protect their performance against the detrimental effects of fatigue. However, surgical performance measures in real life operations were found to be rather crude, so it is unclear whether these measures were sufficiently sensitive to detect effects of fatigue if they do exist. We argue for more fine-grained performance measures in future research.

Disclosure: Nothing to disclose

P-098 Role of Adipose Tissue and Skeletal Muscle in Atherosclerotic Occlusive Disease (Peripheral Arterial Disease and Carotid Arterial Disease) and in Central Hemodynamics

Miscellaneous

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Introduction: Peripheral arterial disease (PAD) is a manifestations of atherosclerotic disease. Adipose tissue (AT) and skeletal muscle (SM) are endocrine organs producing polypeptides with vascular effects (adipokines and myokines). The objective of this study is to compare the quantity and function of AT and SM between two groups: intermittent claudication (IC) and critical limb ischemia (CLI).

Methods: The quantity of AT and SM will be determined with anthropometric measurements (height, weight, body mass index, waist circumference, hip circumference, waist-to-hip ratio and skinfolds) and with CT scan.

A transverse CT image obtained at lower border the third lumbar vertebra (in the lower border) will be used to quantify the SM, visceral and subcutaneous AT. The SM area will be calculated adding the areas of the following muscle at the third lumbar vertebra: psoas, erector spinae, quadratus lumborum, transversus abdominis, external and internal oblique abdominal muscle and rectus abdominis. The area of subcutaneous compartment will be determined as the area of tissue between the visceral cavity and the body

contour. Visceral fat area will be the area of the tissue within the contour of the visceral cavity.

The skeletal muscle function will be inferred with the determination of hand strength using a Jamar® hydraulic hand dynamometer. The t-test will be applied to analyse the continuous variables.

Results: In this poster the preliminary results will be showed. From december 2018 to March 2019 28 PAD patients were studied: 18 IC (14 male; age:68,89±9,33years) and 10 CLI (6 male; age: 70,88±9,61years). Analyzing the anthropometric measures, there is no statistic meaningful differences between the two groups, however the CLI patients have less muscle strength and larger subscapular and suprailiac skinfolds (weight: 74,45±11,7Kg IC versus 73,45±12,64Kg CLI p=0,13; body mass index: 27,80±3,33Kg/m² IC versus 27,59±3,30Kg/m² CLI p=0,18; waist circumference: 101,86±9,97cm IC versus 101,76±10,62cm CLI p=0,38; ; hip circumference: 100,43±7,38cm IC versus 101,04±7,44cm CLI p=0,39; subscapular skinfold: 10,44±4,11mm IC versus 13,30±4,71mm CLI p=0,43; suprailiac skinfold: 11,08±4,81mm IC versus 14,43±4,43mm CLI p=0,26; skeletal muscle strength right hand skinfold: 10,37±7,75Kgf IC versus 17,33±6,92Kgf CLI p=0,24; skeletal muscle strength left hand skinfold: 18,50±8,34Kgf IC versus 16,88±6,93Kgf CLI p=0,10. We also found on CT scan that the quantity SM is lower in CLI than in IC (subcutaneous AT area: 16607,02±7323,67cm² IC versus 17572,4±8682,3cm² CLI p=0,17; visceral AT area 20194,74±10629,62cm² IC versus 22112,07±10561,9cm² CLI p=0,93; Total AT area 42056,79±29932,1cm² IC versus 49815,74±36672,21cm² CLI p=1,13; SM area 14119,4±4802,87cm² IC versus 13694±4528,51cm² CLI p=0,27).

Conclusion: CLI tend to have smaller SM and larger AT areas, as determined with the CT scan. The AT has a direct effect on the reduction of the quantity of SM. There is an association between the SM area and the muscle function, strength (determined by handgrip strength), which seems to be also true in this small sample. Loss of muscle strength is associated with arterial stiffness, inflammation, endothelial dysfunction and all-cause mortality.

Disclosure: Nothing to disclose

P-099 Home Blood Pressure Monitoring in Patients After Carotid Endarterectomy: A Feasibility Study

Supra-aortic Arterial Disease

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Introduction: Around fifty percent of perioperative strokes following carotid endarterectomy (CEA) are related to hemodynamic disturbances (hypertensive and hypotensive episodes) and can occur up to 30 days after surgery.