

請し当院救急科に搬送された。来院時心肺停止、蘇生術に反応が無く死亡を確認した。死因が不明のため、同日病理解剖となった。

「剖検診断」1. 両側肺動脈血栓塞栓症あり。肺動脈本幹は器質化血栓が固着しているが完全な閉塞ではない。末梢に一次分枝から末梢に新鮮血栓が複数箇所認められた。2. 腎糸球体の血栓性微小血管症。3. 心筋・大脳皮質の微小梗塞。4. 子宮腺筋症(980 g) 5. 慢性甲状腺炎。

「検討事項」40歳後半の女性で健康診断・通院がないため、過去の検査データが無い症例。また、生活歴では疾患のエピソードはなかった。剖検の病理診断では、比較的若い年齢ながら、諸臓器には過去の微小血栓の発生を示唆する瘢痕(腎臓・肺)梗塞(心筋・大脳)が認められた。また、詳細不明ながら姉妹が血栓症(?)で死亡しているとのことで、家族性・遺伝性の疾患も否定できないものだった。ただし、剖検時には肺動脈血栓塞栓症による死亡が考えられ、マクロ臓器にも目立った異常が無かったため、腎臓各種検査用組織や血清保存などを行えなかった。剖検臓器のみでのミクロ観察であるが、血栓性微小血管症(TMA)も疑われる症例であったため、病理学的、臨床的な検討を含めて考察する。

P3-45.

Resuscitative endovascular balloon occlusion of the aorta for uncontrollable nonvariceal upper gastrointestinal bleeding

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Background: Although resuscitative endovascular balloon occlusion of the aorta (REBOA) in various clinical settings was found to successfully elevate central blood pressure in hemorrhagic shock, this intervention is associated with high mortality and may represent a last-ditch option for trauma patients. We conducted a retrospective study of patients with nonvariceal upper gastrointestinal bleeding (UGIB) who underwent REBOA to identify the effectiveness of REBOA and reviewed published literatures.

Methods: REBOA were performed by trained acute care physicians in the emergency room and intensive care unit.

The deployment of balloon catheters was positioned using ultrasonography guidance. Collected data included clinical characteristics, hemorrhagic severity, blood cultures, metabolic values, blood transfusions, REBOA-related complications and mortality. A literature search using PUBMED to include “aortic occlusion” and “gastrointestinal bleeding” was conducted.

Results: REBOA was attempted in eight patients among 140 patients with UGIB and median age was 66 years.

Systolic blood pressure significantly increased after REBOA (66 ± 20 vs. 117 ± 45 mmHg, $p < 0.01$) and the total occlusion time of REBOA was 80 ± 48 min. Strong positive correlations were found between total occlusion time of REBOA and lactate concentration (Spearman's $r = 0.77$), clinical Rockwall score (Spearman's $r = 0.80$), and age (Spearman's $r = 0.88$), respectively.

Conclusion: REBOA can be performed with a high degree of technical success and is effective at improving hemodynamic in patients with UGIB. Correlations between total occlusion time and high lactate levels, clinical Rockall score, and age may be important for successful use of REBOA.

P3-46.

Long Term Prognosis of Patients with Vasospastic Angina Implanted with ICD after Resuscitated Sudden Cardiac Death

(循環器内科)

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Background Although it has been well known coronary vasospasm triggered ventricular fibrillation, in almost patients with vasospastic agina (VSA), myocardial ischemia can be controlled by medical therapy such as calcium channel blockers and have a good prognosis. ICD implantation for secondary prevention is still controversial, because in the guidelines ICD therapy is indicated in patients who are survivors of cardiac arrest,

but not indicated for reversible disorder. The purpose of this study was to evaluate the recurrence rates of ventricular fibrillation (VF) in patients with VSA. **Methods and Results** We assessed ICD therapy during follow up period (52.5 months) in a group of 14 patients (12 male, 48±15 year-old) who were diagnosed with VSA and who received ICDs for secondary prevention after an episode of resuscitated sudden cardiac death due to VF. Two of 14 patients (14%) have experienced an appropriate shock during follow-up period even under optimal medical therapy. Incidence of appropriate shock after first episode of VF Raged between 5 and 12 months. Three inappropriate shocks have occurred. All 14 patients were alive and were symptom-free during the study. **Conclusions** ICDs for secondary prevention might be considered in patients with VSA because the recurrence of VF was relatively high and occurred early period after sudden cardiac death.

P3-47.

Relationship between tissue characterization of coronary plaques observed by Integrated back-scatter intravascular ultrasound (IB-IVUS) and Fractional Flow Reserve after PCI in Patients with stable coronary heart disease

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Back ground : Fractional Flow Reserve (FFR) is an index of functional coronary stenosis. Several studies have suggested that FFR-based PCI results in an excellent long-term outcome, but we sometimes have experienced an insufficient improvement of FFR after PCI. We assessed the relation between tissue characterization of plaques evaluated by IB-IVUS and an insufficient improvement of FFR after PCI of left anterior descending coronary artery (LAD). **Method** : Twenty six patients with stable angina pectoris who received PCI for LAD were enrolled in this study (67.0±10.0 years

old, 20 males). IB-IVUS was evaluated from LAD distal to LCA orifice before PCI. Using Image-analysis software (VISIWAVE), plaque volume and tissue characterization (calcification (CA), dense fibrosis (DF), fibrosis (F), and lipid pool (LP)) were assessed in whole of LAD. FFR was evaluated in LAD distal using pressure wire after PCI.

Results : Plaque volume before PCI was 60.6±11.5 mm³/10 mm. FFR after PCI was 0.80±0.06. There was no significant relation between plaque volume and FFR after PCI. In the analysis of plaque tissue characterization, there were significant correlation of FFR after PCI with CA (%) ($r = -0.579, p = 0.015$) and DF (%) ($r = -0.542, p = 0.036$). **Conclusion** : Our findings indicate that the amount of calcification and dense fibrosis of coronary plaques may relate with an insufficient improvement of FFR after PCI.

P3-48.

Possibility for Early Discharge after trans-catheter aortic valve implantation (TAVI) in Japanese Patients

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Background : In western countries, post trans-catheter aortic valve implantation (TAVI) early discharge program including same day and next day discharge has been started. However, risk for complications is higher in Japanese patients. Thus, patient selection is very important for safety discharge

Methods : 42 patients who undertook TAVI were included in the study. Patients were divided into 2 groups : possible early discharge (ED) group and standard group. Possible ED was defined as condition patients discharged without complication, intravascular medication and mechanical support. Odds ratio (OR) and 95% confidence interval (CI) of ED in patient backgrounds, measurements including pre-procedural blood test and echocardiogram and procedure contents were calculated by multivariate step wise logistic regression analysis including all parameters.

Results : 24 and 18 patients were included in ED and