

トピックス

脳病態時のマイクログリア:本当にマイクログリアは活性化して死細胞を貪食するのか?

田中 潤也

愛媛大学大学院医学系研究科分子細胞生理学

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突発性難聴に対する内耳低温療法

羽藤 直人, 兵頭 純, 吉田 正, 竹田 将一郎, 暁 清文

愛媛大学医学部頭頸部・感覚器外科学

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原 著

神経系におけるプロサポシンの細胞内局在とmRNAの発現部位

細田 能希

愛媛大学大学院医学系研究科脳とこころの医学分野

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Summary

Prosaposin is the precursor of four sphingolipid activator proteins (saposins A, B, C, and D) for lysosomal hydrolases, and is abundant in the nervous system and muscles. Besides its role as a precursor of saposins in lysosomes, intact prosaposin has neurotrophic effects in vivo or in vitro when exogenously supplied. In this experiment we examined the distribution of prosaposin in the central and peripheral nervous systems and its intracellular distribution. With a monospecific anti-saposin D antibody, which cross-reacts with prosaposin but not with saposin A, B, C, the immunoblot experiments showed that both the central and peripheral nervous systems express unprocessed prosaposin but little saposin D. Using the anti-saposin D antibodies, we demonstrated that prosaposin is abundant in almost all neurons in both the central and peripheral nervous systems containing autonomic nerves, as well as in motor and sensory nerves. Immunoelectron microscopy using double staining with anti-saposin D and anti-cathepsin D antibodies showed strong prosaposin immunoreactivity mainly in the lysosomal granules in the neurons in both the central and peripheral nervous systems. The expression of prosaposin mRNA examined using in situ hybridization was observed in these same neurons. Our results suggest that prosaposin is synthesized ubiquitously in neurons in both of the central and peripheral nervous system.

Key Words : Immunohistochemistry, In Situ Hybridisation, Prosaposin

A study on cardiac autonomic nervous reaction to hemodynamic change in response to changes in posture in type-2 diabetes patients

Hitoshi Kaneko

Kaneko Heart Clinic

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要旨

心臓血管系における糖尿病性神経障害は心臓自律神経の失調としてあらわれる。この結果進行した糖尿病性神経

障害は心拍数や血圧の調節障害を引き起こし、臥位あるいは座位からの起立時に血行動態の破綻を来し、起立性低血圧による立ち眩みを起こしたり、時として失神に至ったりすることさえある。自律神経活性の評価はその簡便性から心拍数変動係数(CV-RR)が多用されるが、これは主として副交感神経(迷走神経)活性の評価であり、交感神経活性についての情報に乏しい。筆者は慢性の循環器疾患で本院に通院している患者延べ68人について、糖尿病を合併している患者(DM)と合併していない患者(NDM)を年齢一致により34人ずつの同数に割付け、CV-RRに加え交感・副交感の情報を個々に評価出来るローレンツプロット法を用いて分析し、安静臥位における自律神経活性と体位変換による変動を検討した。またHbA1cを目的変数とし、各種の自律神経パラメーターを説明変数とする変数選択重回帰分析を行い、HbA1cの予測回帰式を求めようと試みた。その結果興味ある知見を得たので以下に報告する。

Key Words : Type-2 Diabetes, CAN(Cardiac Autonomic Neuropathy), Prediction formula

カイン酸投与後ラット海馬におけるプロサポシン免疫反応の変化

上松 敬吾¹⁾, 武智 浩子¹⁾, 下川 哲哉¹⁾, 宮脇 恭史¹⁾, 小林 直人²⁾, 松田 正司¹⁾

1)愛媛大学大学院医学系研究科解剖学発生学分野 2)総合医学教育センター

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Summary

Four sphingolipid activator proteins, saposin A, B, C and D, are synthesized from a single precursor protein, prosaposin. In addition to its role as a precursor of saposins in lysosomes, intact prosaposin has neurotrophic effects in vivo or in vitro when supplied exogenously. In the present study, an anti-saposin D antibody that cross-reacts with prosaposin was used to determine whether prosaposin immunoreactivity enhanced in the hippocampal neurons after kainic acid was injected. Prosaposin immunoreactivity in the kainic acid-treated hippocampal CA 1 neurons showed a significantly increased on day 3 after the injection, and maintained a high level of the immunoreactivity even at 3 weeks after the stimulation. This study suggests that the stimulated hippocampal neurons synthesize or intake prosaposin for their survival.

Key Words : Hippocampus, Prosaposin, Kainic acid

臨床経験録

肺血栓塞栓症の現況 -アンケート調査から-

大下 晃, 福田 浩, 末田 章三

済生会西条病院循環器科

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Summary

The diagnostic and therapeutic strategies used for pulmonary thromboembolism (PTE) are published by the Japanese Circulation Society. The purpose of this study was to investigate the current status of the diagnostic and therapeutic strategies for PTE in Ehime. Questionnaires concerning the number, diagnosis, treatment and treatment results of PTE over 3 years (2003-2005) were sent to 21 cardiology hospitals and 8 vascular surgery hospitals. The collection rate was 51.7% (cardiology hospitals : 61.9%, vascular surgery hospitals : 25%). Over 3 years, a total of 122 cases of PTE were reported (34 cases in 2003, 45 cases in 2004, 43 cases in 2005). Death occurred in 19 cases (4 cases in 2003, 7 cases in 2004, 8 cases in 2005). Thrombolytic therapy was performed in 75 cases, and catheter fragmentation and aspiration therapy were performed in 31 cases. Inferior vena cava (IVC) filters were used in 34 cases. The frequency of IVC filters use was low, used in only 9 institutions IVC filter

placement was performed with patients with recurrent PTE and massive PTE. PTE is a common cardiopulmonary illness and a lifethreatening disease. Further diagnostic and therapeutic strategies are needed.

Key Words : pulmonary thromboembolism, questionnaire, therapeutic strategies

実地臨床医における冠動脈危険因子の管理ーガイドライン管理目標達成率の検討ー

松原 渉1), 越智 隆明2), 芦原 俊昭3), 檜垣 實男4)

1) 浮穴診療所 2) おち内科循環器科 3) 松山赤十字病院循環器病センター 4) 愛媛大学大学院病態情報内科学
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Summary

Objectives : To investigate the current management of risk factors for coronary heart disease and analyze the difference between the actual achieved outcome and guideline targets for discussion of future treatment policy.

Subjects and Methods : Patients (n=316) were enrolled if they had a history of myocardial infarction or two or more of the following conditions : hypertension, hyperlipidemia, or diabetes mellitus. Evaluations were performed at 1, 2 and 3 years after enrollment, with 222 patients completing the 3-year observation period.

Results : The target achievement rate for diastolic blood pressure was significantly higher after 3 years, but the systolic blood pressure target was difficult to achieve in many diabetic patients and their achievement rate was only 26.5%. Lipid levels were improved after 3 years, but the target achievement rate in patients with myocardial infarction was only 34.6%. There were no significant changes in the target achievement rates for fasting blood glucose and HbA1c in diabetic patients.

Conclusions : Evaluation of the management of risk factors for coronary heart disease over time and discussion of treatment policy have improved the achievement of guideline targets. However, patients with diabetes and myocardial infarction may need more active treatment.

Key Words : coronary heart disease, risk factors, guideline

心房細動に対するカテーテルアブレーション治療の初期成績

藤井 昭, 橋田 英俊, 大谷 敬之, 船田 淳一

独立行政法人国立病院機構愛媛病院循環器科

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Summary

Atrial fibrillation (AF) is regarded as the most common tachycardia in clinical settings, with 5% of its cases being prevalent in those older than 65 years. Although AF itself is not directly associated with high mortality, it is a strong independent risk factor for a reduced quality of life (QOL) from ischemic stroke, systemic arterial occlusion and heart failure. In 1998, Haissaguerre demonstrated that paroxysmal AF could be initiated by spontaneous focal discharges originating from the pulmonary veins (PVs), and these foci could be eliminated by restricted radiofrequency applications through electrophysiological isolation between the left atrium and PVs. We have performed 19 ablations using PV isolation, since 2004. This manuscript describes the promising initial results that may pave the way for the improvement of QOL and prognosis in patients with AF.

Key Words : atrial fibrillation, catheter ablation, PV isolation

造血幹細胞移植における副作用・合併症チェックシートの有用性の検討

井門 敬子1), 新居 由香2), 末丸 克矢1), 荒木 博陽1)

1) 愛媛大学医学部附属病院薬剤部 2) 同看護部

愛媛医学 26(4): 333-337, 2007

Summary

The hematopoietic stem cell transplantation center was established at Ehime University Hospital in April 2005. At this center, the number of hematopoietic transplantations is increasing with the accumulation of clinical evidence of the efficacy of mini-transplantation for solid malignancies. Although a mild preconditioning regimen for mini-transplantation reduces toxicity as bone marrow destruction spreads, careful monitoring is essential to avoid such complications as infections and graft versus host disease (GVHD). In this report, 7 patients with hematological malignancies who underwent mini-transplantation from November 2003 to November 2005 were retrospectively investigated to establish a check sheet for the regimen-related toxicity and complications. In all patients, neutrophil engraftment was achieved after a median of 16 days. Five patients developed grade I-IV acute GVHD within 50 days and one patient died on Day 84. Bacterial infections (in 4 patients) and cytomegalovirus infections (in 3 patients) occurred, but pneumocystis pneumonia and herpes were prevented in all cases. Based on these results and the previous findings, we prepared a check sheet for monitoring of toxicity and complications in hematopoietic stem cell transplantation. This sheet may provide useful information in the staff of hematopoietic stem cell transplantation team.

Key Words : mini-transplantation, complication, check sheet

症例報告

1病変に腺腫を合併したColonic muco-submucosal elongated polyp (CMSEP) の多発例

岩川 和秀¹⁾, 井上 仁¹⁾, 梶原 伸介¹⁾, 市川 幹郎²⁾, 中西 護³⁾, 門多 健⁴⁾

1) 市立宇和島病院外科 2) 同内科 3) 同病理検査部 4) かどた医院

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Summary

A new category of CMSEP has been proposed for a pedunculated colon polyp containing mucosa and submucosa. We experienced a case of this polyp associated with tubular adenoma originating in the Bauchin bulve. A 72-year-old female visited our hospital because of a positive occult blood test. Colonoscopy revealed a long Cobra head-shaped polyp with an elevated lesion on the head. A similar lesion was detected in the cecum. Laparoscopic ileo-cecal resection was performed. Histological examination showed typical characteristics of CMSEP, and a tubular adenoma on the head. This case is valuable for studying growth mechanisms of CMSEP.

Key Words : colonic muco-submucosal elongated polyp, tubular adenoma, colon polyp

肛門狭窄を合併した直腸粘膜脱症候群の1例

窪田 覚

窪田クリニック消化器科, 外科, 肛門科

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Summary

A 78-year old man underwent Hemorrhoidectomy twice. Since 2002, the patient had suffered from pencil thin stool and frequent defecation. So he was given laxatives at a nearby hospital, but his disorder of defecation didn't improve. The following year, he complained of bloody stool after straining during defecation since 2004. Digital and endoscopic examination revealed an anal stenosis and a reddish mass in the anterior rectal wall beyond the

lower Houston valve. The pathological diagnosis was mucosal prolapse syndrome of the rectum. Colon diverticulosis with no inflammation was observed in the ascending and descending colon. The guidance of less straining defecation, medication therapy and anal bougie method for anal stenosis were employed. Mucosal prolapse of the rectum was markedly improved, and about 7 months later it was no longer observed, and medication was ceased. Defecography showed abnormal anorectal dysfunction while straining at defecation but this was not caused by outlet obstruction due to the straining. Now, no recurrent condition can be observed.

Key Words : Mucosal prolapse syndrome, anal stenosis

IFN α にCOX-2阻害剤およびシメチジンの併用が有効であった腎細胞癌術後再発の1例

野田 輝乙1), 池田 哲大1), 尾澤 彰1), 丹司 望1), 池田 稔2), 横山 雅好1)

1)愛媛大学大学院医学系研究科泌尿器制御学分野 2)池田医院

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Summary

A 77-year-old woman underwent a radical right nephrectomy after being diagnosed with renal cell carcinoma (pT3bN0M0). A solitary lung nodule developed 18 months later. A right upper thoracoscopic lobectomy was performed and the histopathological diagnosis was metastasis of renal cell carcinoma. Six months after the lobectomy, metastases to the lymph nodes (LNs) of the mediastinum and the hilum pulmonis were found in the follow-up CT. Subcutaneous injection of interferon α (INF α) was started. However, the sizes of the metastases did not change, although the therapy was administered for 2 months. Subsequently, the patient was treated with a combination of orally administered Meloxicam and cimetidine. Meloxicam is known as a potent cyclooxygenase-2 inhibitor among commercially available non-steroidal anti-inflammatory drugs, and cimetidine is known as an H2 receptor antagonist and is a potential immunomodulator acting on T-suppressor cell and NK-cell activity as well as macrophage function. This combination treatment resulted in a complete response. Adding meloxicam and cimetidine to the IFN α regimen may have a potential antiproliferative effect against advanced renal cell carcinoma.

Key Words : renal cell carcinoma, COX-2 inhibitor, cimetidine

経皮経肝胆道鏡下に電気水圧衝撃波を用いて除去し得た胆道再建後多発肝内結石の1例

山西 浩文1), 芝田 直純2), 横田 智行1), 松井 秀隆2), 村上 英広1), 松浦 文三1), 恩地 森一1)

1)愛媛大学大学院医学系研究科医学専攻先端病態制御内科学

2)愛媛大学大学院医学系研究科医学専攻内視鏡形態情報学

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Summary

A 43-year-old man visited a clinic with a recurring high fever. He was diagnosed with intrahepatic gall stones and referred and admitted to our hospital. It was impossible to perform endoscopic retrograde lithotripsy in this case because Roux-Y anastomosis had been done. Thus, we performed percutaneous transhepatic cholangio drainage (PTCD) and decided to employ electrohydraulic lithotripsy (EHL) using a cholangioscope through a PTCD drainage tube. After changing the size of PTCD tube from 7 Fr to 12 Fr, EHL was performed through a cholangioscope. The intrahepatic gall stones were successfully crushed and removed in four stages of percutaneous transhepatic cholangioscopic lithotripsy with EHL.

Key Words : intrahepatic gall stones, electrohydraulic lithotripsy, percutaneous transhepatic cholangio

drainage

研究会抄録

第49回日本耳鼻咽喉科学会愛媛県地方部会

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