

## トピックス

### 湿布の転移巣に対する抗腫瘍効果について

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### MALDI TOF-MSを用いた新たな子宮内膜症診断マーカーの検索法

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#### Summary

Endometriosis, affecting women of reproductive ages, causes pelvic pain and infertility. The diagnosis of endometriosis should be based on laparoscopic visualization, however, this method is worrisome and is not a trivial procedure. Less invasive methods for the diagnosis of endometriosis have been desired. The purpose of this study was to establish a new diagnostic marker for endometriosis that can be applied more easily on a clinical basis. Experiments were carried out based on the proteomic approach using MALDI TOF-MS, 2-D gel electrophoresis, patients' sera and a human culturing cell line. All serum samples in this study were obtained with informed consent. The cells used were human malignant pleural mesothelioma cells. Sample was mixed with the sample loading buffer, then loaded onto the 2-D gel electrophoresis, followed by SDS-PAGE using 10% acrylamide gel. After electrophoresis, the proteins in the gel were transferred to a PVDF membrane. The membrane was incubated with the 1 : 1,000 diluted serum samples. In this study, sera from 3 endometriotic patients and 1 healthy volunteer were used. The membrane was incubated with anti-human IgG HRP conjugate. The membrane was developed using ECL solution and HyperFilm ECL. The 2-D gels were also stained directly with CBB. Spots were excised from the 2-D gel, treated with trypsin, and subjected to the MALDI TOF-MS analysis and the data were analyzed by the peptide mass fingerprinting method. Recombinant proteins were elaborated and ELISAs were developed for the estimation of serum autoAb. Two spots were identified as autoantigens specific to endometriosis, namely Protein A, B. None of these spots were reacted with the control serum. We are now investigating these two proteins using newly developed ELISA.

Key Words : endometriosis, tumor marker, MALDI TOF-MS

## 症例報告

### 頸部外傷による甲状腺中毒症の1例

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#### Summary

A 48-year-old woman was hospitalized for a neck injury attributed to a bicycle fall. Computed tomography revealed bleeding of the thyroid gland. As a result, the patient underwent preventative hospitalization in order to

monitor her neck swelling for possible airway obstructions. With the exception of neck pain, no general symptoms were observed ; however, her laboratory data indicated that she had thyrotoxicosis. During the course of treatment, it was revealed that the patient had an increase in free T3 (FT3) and T4 (FT4) levels immediately after injury, and a return to standard levels shortly thereafter. The high thyroid stimulating hormone levels in the patient indicated mild subclinical hypothyroidism. Further evidencing this was the fact that her clinical data exhibited a reduction in the increased TSH levels, which subsequently returned to normal as a result of the change in FT3 and FT4 levels. Occurrences of neck injury are occasionally observed, however isolated thyroid injury as a result of blunt neck trauma is uncommon. Thyrotoxicosis or thyroid storm may occur in patients without known hyperthyroidism.

Key Words : thyrotoxicosis, neck injury

### **高圧酸素療法が奏効したサイクロフォスファミドによる出血性膀胱炎の1例**

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#### **Summary**

A 74 year-old woman with rheumatoid arthritis, which was treated with cyclophosphamide for 8 years (114 g in total) was admitted to the hospital with massive macrohematuria. Transurethral coagulation (TUC) was performed at her previous hospital, but was not successful. Conservative therapy including intravesical irrigation and TUC was also unsuccessful. Thus, the patient began hyperbaric oxygen therapy. Intravenous administration of antibiotics for pyelonephritis and TUC were required during the therapeutic period. After the 33rd hyperbaric oxygen therapy-session, the symptoms completely disappeared. The patient remains symptom-free to this day.

Key Words : hemorrhagic cystitis, hyperbaric oxygen therapy

### **宇和島保健所管内に多発する日本紅斑熱の感染要因の検討**

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#### **Summary**

29 cases of Japanese spotted fever (JSF) were reported by The Ehime Epidemiological Surveillance of Infectious Diseases in Ehime Prefecture between August 2003 and October 2008, Uwajima City reported 23 of the 29 cases. There Because Uwajima City is located near mountains where ticks are commonly found, residents have many chances to come in contact with ticks while completing farm work or their daily routine. Ticks are carrier of *Rickettsia japonica* and thus are a common source of infection for JSF patients. In the future, it is expected that the number of JSF patients in Uwajima City will increase as the number of ticks increases due to Global warming. If JSF patients do not receive proper treatment at the early stage, JSF can lead to serious conditions, such as disseminated intravascular coagulation or multiple organ failure. Therefore it is important that close attention be paid to patients who present with high fever and erythema of the whole body. Because the occurrence of JSF is expected to spread to regions other than Uwajima City in the future, it is important that a general clinic be created where JSF patients can receive accurate diagnosis and treatment, as well as educating the public about JSF.

Key Words : Japanese spotted fever, *Rickettsia japonica*, Ehime Epidemiological Surveillance of Infectious

## 臨床経験録

### 人間ドック検診における耐糖能異常者の実態と治療状況に関する検討

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#### Summary

Purpose : Recently, patients with impaired glucose tolerance have been increasing. In this study, we examined the glycemic status in people who underwent a check-up. Methods : The glycemic status based on the serum levels of hemoglobin A1c was evaluated in 4216 persons who underwent a check-up through the Ehime General Health Care Association in 2007. Results : Among those who underwent a check-up, 4.1% and 9.5% of the subjects had impaired glucose tolerance and suggested impaired tolerance respectively. This percentage became higher with age. Female subjects were more likely to not consult a physician following their check-up. Conclusion : This study indicates that more than 10% of the adult subjects had or suggestively had impaired glucose tolerance in Ehime Prefecture. It may be necessary to establish a system that will encourage persons with impaired glucose tolerance to consult a physician after check-up.

Key Words : diabetes mellitus type 2, check-up, hemoglobin A1c

## 研究会抄録

### 愛媛脳神経外科懇話会第 97 回学術集会

愛媛医学 28(1):29-31, 2009

### 第 8 回愛媛県摂食嚥下研究会

愛媛医学 28(1):32-34, 2009

### 第 41 回愛媛臨床血液懇話会

愛媛医学 28(1):35-36, 2009

### 第 112 回愛媛整形外科集談会

愛媛医学 28(1):37-40, 2009