

他誌発表論文抄録

Q熱

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Q熱は、Q熱コクシエラ (*Coxiella burnetii*) による人獣共通感染症であり、主に反芻動物やペット等の感染動物の胎盤や排泄物からのエアロゾルによる感染で、非定型肺炎や肝炎、不明熱を起こす。欧米では、しばしば集団発生等もあり、非定型病原体の一つとして一般に認知されてい

る。しかしわが国では、感染症発生動向調査で4類全数報告疾患として報告される数は、年に数例～40例程度でほとんどが散発例であり、感染源などまだ実態は不明な点が多い。本稿ではQ熱の概説をし、Q熱の疫学、臨床像、診断、予防について述べ、今後の課題を示す。

Human Granulocytic Anaplasmosis, Japan

Norio Ohashi, Gaowa, Wuritu, Fumihiko Kawamori, Dongxing Wu, Yuko Yoshikawa, Seizou Chiya, Kazutoshi Fukunaga, Toyohiko Funato, Masaaki Shiojiri, Hideki Nakajima, Yoshiji Hamauzu, Ai Takano, Hiroki Kawabata, Shuji Ando, and Toshio Kishimoto

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We retrospectively confirmed 2 cases of human *Anaplasma phagocytophilum* infection. Patient blood samples contained unique *p44/msp2* for the pathogen, and antibodies bound to *A. phagocytophilum* antigens

propagated in THP-1 rather than HL60 cells. Unless both cell lines are used for serodiagnosis of rickettsiosis-like infections, cases of human granulocytic anaplasmosis could go undetected.

ロタウイルス感染に関連した可逆性の脳梁膨大部病変を伴う 臨床的軽度脳症の4歳児の症例について

A 4-year-old girl with clinically mild encephalopathy with a reversible splenial lesion associated with rotavirus infection

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ロタウイルスは重症小児胃腸炎の原因ウイルスとして広く知られている。またロタウイルス胃腸炎が、脳炎・脳症や痙攣発作などの中枢神経症状を伴う場合があることもわかっている。今回我々は、ロタウイルス感染に関連した可逆性の脳梁膨大部病変を伴う臨床的軽度脳症の4歳児の症例について報告する。患児は意識レベルの低下、痙攣発作、下痢及び嘔吐により我々の病院に搬送された。検査の結果、糞便中のロタウイルス抗原は陽性であったが、髄液中の細胞数は正常範囲で、初診時における患児の血清中Naレベルも正常であった。脳のコンピュータ断層撮影像では、脳浮腫等の所見は特に認められなかった。しかしながら、脳波は一般に高電位・徐波が認められ、そして拡散強調磁気共鳴画像法では脳梁膨大部に一過性の異常が観察された。これらの所見により、本症例をロタウイルス感染に関連した可逆性の脳梁膨大部病変を伴う臨床的軽度脳症と診断した。患児の予後は良好であり、神経性の後遺症も認められなかった。脳脊髄液中にロタウイルスRNAや抗原が検出されなかったことから、ウイルス感染に続発した中枢神経系異常の間接的影響によって、一過性の脳梁膨大部変性が生じたものと推察された。患児の血清中Naレベルが正常であったことは、本変性が低Na血症を伴わずに生じたことを示すものである。

Rotavirus is a common cause of severe gastroenteritis in children. It is known that rotavirus gastroenteritis may be accompanied by neurological manifestations, including encephalitis/encephalopathy and seizures. We report a case of a 4-year-old girl with clinically mild encephalopathy with a reversible splenial lesion associated with rotavirus infection. She was admitted to our hospital because of reduced level of consciousness, seizures, diarrhea, and vomiting. Fecal rotavirus antigen testing was positive. Cell counts in the cerebrospinal fluid (CSF) were normal. She had a normal serum sodium level on admission. Brain computed tomography showed no cerebral edema. However, electroencephalography showed generalized high-voltage slow waves, and diffusionweighted magnetic resonance imaging demonstrated a transient abnormality in the splenium of the corpus callosum. We diagnosed clinically mild encephalopathy with a reversible splenial lesion associated with rotavirus infection. She recovered well and exhibited no neurological sequelae. Rotavirus RNA and antigen were not detected in the CSF, suggesting that the reversible splenial change was caused by indirect effects on the central nervous system subsequent to viral infection. Her normal serum sodium level indicates that this change can occur without hyponatremia.

食品衛生分野における実践疫学教育

Field Epidemiology Training for Food Sanitation Health Officials

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In Japan, foodborne outbreak investigations tend to rely on pathogen detection from suspected foods, and rarely depend on epidemiological findings when implementing control measures. This often leads to a delay in outbreak response. In the United States and many countries in Europe, results from epidemiological investigations are more frequently used to control the outbreak in a timely manner.

In June 1997, a major enterohemorrhagic *Escherichia coli* O157 foodborne outbreak struck Okayama city causing 125 illnesses. Despite a thorough investigation, health officials could not determine the direct cause of the outbreak due to insufficient epidemiological findings. Recognizing the need for epidemiological training, Okayama City Public Health Center, in collaboration with nearby universities, started hosting “Field Epidemiology Training” courses every year for food sanitation health officials not only of Okayama city, but also of other municipalities.

The training course provides two three-day classes, “basic” and “advanced”, according to the knowledge level of the trainees.

The “basic” class aims at understanding general concepts of epidemiology and mastering basic techniques in a foodborne outbreak investigation. An exercise session is held after each lecture, which helps the trainees to understand the concepts and how to implement them to foodborne outbreak investigations. The course is practical and trainees may use the techniques taught in this course as soon as they get back to their job, which is highly appreciated.

In the “advanced” class, trainees are divided into groups to each analyze outbreak investigation data brought from each trainee’s health centers. Each group makes a presentation at the end of the course on how they analyzed the data and the reason for their final decision to manage the outbreak. They discuss the methods used and their decisions with the trainers and other groups.

We believe that field epidemiology should play a more important role in foodborne outbreak investigation in Japan, and that field epidemiology training is becoming increasingly necessary.