

Surest Signs of Meningococcal Disease Debated

BY JEFF EVANS
Senior Writer

Recognition of the early meningococcal disease features of leg pain, cold hands and feet, and abnormal skin color may help get children to the hospital faster than classic symptoms that occur later in the illness, reported Dr. Matthew J. Thompson of the University of Oxford (England), and his associates.

The information about early symptoms came from a retrospective study that provides the first description of the time course of clinical features of meningococcal disease that occur before hospital admission, they

said symptoms and then to classic symptoms. Nonspecific symptoms that are common in self-limiting viral illness, such as fever, poor feeding or decreased appetite, nausea, vomiting, and irritability, developed within the first 4-6 hours of disease onset.

Dr. Thompson and his colleagues said that because these earliest symptoms of the disease are so common, it is important for parents to be able to reconsult their doctor on the same day as their ini-

tial visit if their child's condition worsens.

But these symptoms are of just as little value as leg pain, cold hands and feet, and abnormal skin color because they are so nonspecific, Dr. Reisinger said in an interview.

The investigators did not have data on the frequency of symptoms or the course of illness of children with other illnesses outside of the hospital, and so they could not make any quantitative estimate of how sensitive or specific the early symp-

toms could be as diagnostic markers.

"Unfortunately, [the investigators] ignore these limitations and go on to say these findings have 'important implications' for parents and clinicians," Dr. Reisinger said.

"The greatest limitation of the study is the retrospective nature of recollection by the parents. All these families went through a very traumatic event, and we are left with no idea how accurate their recollections are," he added. ■



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DR. REISINGER

said (Lancet 2006 Jan. 11 [Epub doi:10.1016/S0140-6736(06)67932-4]).

Meningococcal disease is typically diagnosed in children at presentation to a hospital after the onset of late-occurring classic symptoms, including hemorrhagic rash, meningism, and impaired consciousness.

"We believe that primary care physicians are overreliant on using these three [classic] symptoms to diagnose meningococcal disease in children, and that parents may be influenced by doctors or public health campaigns to seek medical advice only on the appearance of features such as a rapidly evolving rash," according to Dr. Thompson and his associates.

But Dr. Keith S. Reisinger, a pediatrician in private practice in Pittsburgh, contended that these early symptoms "are not specific enough to alarm a parent or doctor."

In the study, parents of 448 children and adolescents with meningococcal disease either completed a questionnaire or an interview regarding the course of their child's disease an average of about 140 days after the illness; in some cases, the questionnaire or interview was supplemented by medical records. Those three early features of meningococcal disease occurred within a median of 7-12 hours after the onset of illness, compared with a median time of onset of 13-22 hours for the three classic symptoms.

The three early features of the disease in children aged 0-16 years varied in frequency and the median hour of onset: cold hands and feet (43% and 12 hours), leg pain (37% and 7 hours), and abnormal color such as pallor or mottling (19% and 10 hours).

Most (72%) of the pediatric patients had one or more of the three early features of meningococcal disease. These were first noticed at a median of 8 hours after the onset of illness, whereas patients were admitted to the hospital a median of 19 hours after the onset of illness.

Few children developed any new symptoms after 24 hours and in all age groups symptoms progressed from fever to sep-

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