Aspergillus Niger: An Unusual Cause of Invasive Pulmonary Aspergillosis Associated To Chronic Granulomatous Disease

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Background: Invasive pulmonary aspergillosis (IPA) is an opportunistic infection with a poor prognosis occurring primarily in severely immunocompromised individuals. Most infections due to Aspergillus species are attributed to aspergillus fumigatus. Aspergillus niger is a mould that is rarely reported as a cause of pneumonia.

Objective: To report new cases of rare disease

Results: We report two cases of IPA in two 6-year-old twin girls with a family history of primary recurrent bronchopneumopathy referred to our pediatric department in July 2011 for investigations regarding persistent pneumonia and biological inflammatory syndrome. IPA was confirmed by isolating Aspergillus niger from bronchoalveolar lavage and radiology results. Amphotericin B therapy was initiated intravenously for 1 month relayed then by oral Voriconazole for two months. Clinico-biological evolution was favourable. Follow-up computed tomography showed full regression of the pulmonary infiltrates and the thoracic wall mass after 3 months of antifungal therapy. Investigation for immune deficiency revealed chronic granulomatous disease. Our two patients started then on prophylactic antibiotics with co-trimoxazole. We are currently considering HLA identical bone marrow transplantation for them in a near future.

Conclusion: Although is a well-recognized clinical entity, invasive disease caused by Aspergillus niger is less common when compared to Aspergillus fumigates and other. These two case reports demonstrate the potentially aggressive nature of Aspergillus niger and highlight the importance of looking for an immune deficiency particularly in the case of uncommon infection such as Aspergillosis in early childhood.
Etiology and Treatment of Acute Fever in Children

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Background: Acute fever is a common reason for consultation in general pediatrics. Antibiotics are frequently prescribed without being always justified.

Objective: To study the etiology of acute fever in hospitalized children and evaluate its management upstream and the cost of hospitalization

Methods: This is a retrospective study of 100 children aged over 3 months hospitalized for acute fever between January and December 2012. Clinical and therapeutic data were collected for each patient.

Results: The mean age of patients was 22 months. Fever duration was 2.5 days. Half of the patients consulted before. Prior antibiotic therapy was administered in 17% of cases. On admission, fever was 38.7°C on average, isolated in 20% of cases, poorly tolerated in 18% of cases and associated with a seizure in 12% of cases, respiratory symptoms in 25% of cases and ENT infection in 16% of cases. Antibiotics were administrated in 48% of children initially. The bacterial origin was retained secondarily in 37% of patients (pneumonia(n = 19), urinary tract infection (n = 16), bacterial gastroenteritis(n =2)). Supported upstream was considered adequate in 37% of cases.

Conclusion: A thorough clinical examination is necessary to target further investigations and better judge the indication of antibiotic. The emergence of multi-resistant bacterial strains can be avoided.
Children Hydatidosis in Tunisia: Identification of *Echinococcus granulosus* Strains and Case Distribution of Hydatid Cysts

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Background: Echinococcosis/hydatidosis is one of the most important parasitic zoonotic diseases in the world. With a surgical incidence averaging 15/100 000 inhabitants per year and an annual disease cost estimated approximately to US$ 15 millions. Tunisia is one of the most endemic area among the Mediterranean countries. Children are often more vulnerable and may be affected at any age group.

Objective: The present study is a 13 years (1999–2012) analysis of children hydatidosis in Tunisia. Its purpose is to identify the strains responsible of the children disease and analyse the distribution and the fertility of the hydatid cysts in function of the age and the sex of patients.

Methods: 331 cysts coming from 276 children aged 2 to 16 years operated at Monastir teaching hospital were analysed. Identification of strains was carried out by PCR-RFLP of the DNA ITS1 fragment and mitochondrial cytochrome C oxidase gene sequencing. For each cyst, the localization and the fertility of the metacestode as well as age, sex and origin of the patient are listed.

Results: Children's infection is more frequent in the male than in the female sex. The lung was the primary localization of cyst followed by the liver. The most frequent strain associated with hydatidosis is the common G1 sheep strain. For two children the G3 and G6 genotypes were observed for the first time in Tunisia. The fertility of the cyst was independent of its site or its size and no incidence of age of children was detected.

Conclusion: Hydatidosis remains a serious problem of public health in Tunisia. The G6 genotype is of greater public health significance than previously believed.
Cardiovascular Involvement in Kawasaki Disease: Report of 17 cases

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Background: Kawasaki disease is an acute febrile vasculitis. The etiology is unknown. It predominantly affects children, especially infants. Cardiovascular involvement determines the prognosis.

Objective: Report the experience of the pediatric department of Monastir in the management of cardiac involvement in Kawasaki disease.

Materials And Methods: Retrospective study of 17 cases of cardiovascular complications in Kawasaki disease collected in the pediatric department of Monastir for a period of 13 years (1998-2010).

Results: The average age of patients was 42 months (3-136 months). The age was less than 12 months in 6 cases. There were 13 boys and 4 girls with a sex ratio of 3.25. The clinical form of Kawasaki disease was complete in 12 cases. The initial echocardiogram was abnormal in 10 cases. Echocardiogram control at regular intervals noted non-existent cardiac abnormalities in 7 cases. Among the 17 patients who presented with cardiac abnormalities, 11 patients corresponded to the complete clinical form of Kawasaki disease.

Conclusion: The classic definition leads to underestimation of the number of cases particularly in infants while this disease is the cause of severe coronary artery disease, possibly involving the prognosis in the short and long term.