Introduction Periodic fever, aphthous stomatitis, pharyngitis and cervical adenitis (PFAPA) syndrome is the most common autoinflammatory disorder in childhood, with multifactorial, polygenic causes postulated.

Objective To appraise the clinical features, inflammatory characteristics and management of children with PFAPA attending a tertiary Autoinflammatory Clinic.

Methods A retrospective observational chart review of all children with confirmed clinical or suspected PFAPA attending the autoinflammatory clinic at Our Lady’s Children’s Hospital, Dublin from January 2016.

Data were collected on basic demographics, route of referral, symptoms and signs and inflammatory markers during disease episodes (febrile) and non-episodes. Molecular gene analysis if performed, were included. Documentation of all therapeutic agents to date was collated.

Results Thirteen children were identified as having PFAPA.

The median age of disease onset was 16 months, (4 months to 4 years). The route of referral was via Immunology (4 patients), Rheumatology (6 patients) and Infectious disease (3 patients).

All children presented with episodic, recurrent febrile episodes with associated features. (table 1). Median range of duration of episodes was 3–4 days.

Abstract GP194 Table 1 Number of patients

<table>
<thead>
<tr>
<th>Associated Symptoms</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stomatitis</td>
<td>8</td>
</tr>
<tr>
<td>Tonsillitis/Pharyngitis</td>
<td>8</td>
</tr>
<tr>
<td>Cervical Adenitis</td>
<td>7</td>
</tr>
<tr>
<td>Lethargy</td>
<td>6</td>
</tr>
<tr>
<td>Rash</td>
<td>4</td>
</tr>
<tr>
<td>Anorexia</td>
<td>4</td>
</tr>
<tr>
<td>GI upset</td>
<td>12</td>
</tr>
</tbody>
</table>

69% of patients had documented raised inflammatory markers during a flare, with 84% having high serum amyloid A (SAA) levels, the highest documented being 122 0 mg/l (<10 normal). Genetic testing in 6 children was negative for other causes of hereditary autoinflammatory disorders.

11 patients had a significant response to an initial trial of corticosteroids, 2 reported rebound flares. Colchicine was the treatment of choice (11), 9 who had a good response. Tonsillectomy was performed in 5 patients, 3 of whom reported benefit. Biologic agents, Anakinra (2) and Adalimumab (1) were instituted in those refractory to colchicine with variable response.

Conclusion This study gives an over view of the burden of disease imposed by PFAPA on an Irish population. All the children presented with fevers, not all had the triad of aphthous stomatitis, pharyngitis and cervical adenitis.

The majority of patients had relief of symptoms with an initiation trial of corticosteroid. Colchicine was the most frequently used therapeutic agent to prevent disease flares.

Tonsillectomy and biological agents are potential alternative options in some resistant/severe cases.

Abstracts

GP195 ANTIBIOTIC THERAPY IN CHILDREN HOSPITALIZED DUE TO RSV LOWER RESPIRATORY TRACT INFECTION

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Background Polish guidelines do not support antibiotic therapy in children with RSV (Respiratory Syncytial Virus) infection with few exceptions. We analyzed the frequency and reasons for antibiotic treatment in children under 2 years of age to assess the most important drivers in antibiotic use, and its correlation with routinely used inflammatory markers.

Material and Methods 198 children (median age 3 months) were hospitalized due to RSV lower respiratory tract infection (RSV-LRTI) in two consecutive seasons (2016/2017 and 2017/18). RSV infection was confirmed with rapid antigen test and/or polymerase chain reaction. 197 children were enrolled into the study.

Results Antibiotics were used in 39% (76/197) patients, including 6 patients (8%) who received broad-spectrum antibiotics. The main reason for antibiotic use was pneumonia (57%; 43/76), followed by acute otitis media (AOM) in 18% (14/76), lack of improvement (15%;11/76), and urinary tract infections (UTI) in 10% (8/76). Children who received antibiotics were older (median 3.5 vs. 2 months; p<0.01), presented with statistically higher C-Reactive Protein (6.65 vs. 2.1 mg/L; p<0.01), and procalcitonin (PCT) level (0.13 vs. 0.09 ng/mL; p<0.01), white blood cells (12 vs. 10.6×10^3 cell/µL; p=0.04) and absolute neutrophil count (4.09 versus 2.17×10^3 cell/µL;p<0.01). The differences had no clinical significance. Patients were further analyzed in the subgroups: pneumonia, AOM, lack of improvement and UTI group, but no clinically relevant differences were found. Only patients who were given broad-spectrum antibiotics had clinically and statistically significance in PCT (1.95 vs. 0.1 ng/mL;p<0.01). AOM in older children were at 3.96-fold increased risk of antibiotic therapy (95%CI: 1.1–14.7). Patients who received antibiotics required longer hospital stay (11.5 vs. 9 days, p<0.01), especially when broad-spectrum antibiotics were given (17 versus 9 days, p<0.01).
Conclusions Although recommendations are being followed, there is still place for antibiotic therapy in RSV infection. The need for antibiotic cannot be easily predicted upon traditionally used inflammatory markers. Due to prolonged hospital stay, there is strong need for minimizing antibiotic use, and more precise clinical tools to assess the risk of antibiotic.

GP196 THE USE OF A RAPID ANTIGEN DETECTION TEST FOR BETA HAEMOLYTIC GROUP A STREPTOCOCCUS TO AID THE MANAGEMENT OF PHARYNGITIS AND TONSILLITIS IN AN IRISH TERTIARY PAEDIATRIC EMERGENCY DEPARTMENT

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10.1136/archdischild-2019-epa.256

Background Acute sore throat is a common presentation to the Emergency Department (ED). Rapid-antigen detection testing (RADT) is used in our department to aid diagnosis of Group A streptococcus (GAS) as the cause of pharyngitis/tonsillitis as an adjunct to clinical assessment. Our aims were to assess use of RADT in management and treatment of pharyngitis/tonsillitis in the ED and compare our practice with current NICE guidelines.

Methods This was a prospective study which took place at the Children’s University Hospital Dublin in 2018. A proforma was created and doctors were asked to complete this for children who had a RADT for GAS. Data collected included patient age, history, examination findings, rapid-antigen swab result, use of throat swab culture, use of antibiotics. The modified Centor score (MCS) was then calculated.

Results Data collected on 102 patients. 1 patient excluded as data form incomplete. 16 (15.8%) patients had low MCS of 0, 1 or 2. Of these, 1 patient was RADT positive and treated with antibiotics. 85 (84.2%) patients had high MCS of 3, 4 or 5. 26 (30.6%) were RADT positive and were treated with antibiotics. 59 (69.4%) were RADT negative – 6 were treated with antibiotics.

Of the 74 patients with a negative RADT, 20 of these had a throat culture sent. 25% had GAS positive culture.

42/101 patients were treated with antibiotics. 27 of these were RADT positive. Of the RADT negative patients, 8 were treated with antibiotics by the ED physician for pharyngitis/tonsillitis, 3 were treated for other diagnoses, 4 had antibiotics continued that were started by a primary care physician. Of the 27 children with a positive RADT swab, 92.5% had a MCS of 4 or 5.

Conclusions NICE guidelines suggest no benefit of RADT testing over clinical scores alone. The low incidence of RADT positivity in the low risk MCS group (MCS 0, 1 or 2) suggests we can safely not test and not offer antibiotics to these children. In the high MCS group (MCS 3, 4 or 5), only 37.6% of patients had antibiotics started by the ED physician suggesting that RADT may have a role in reducing the number of patients treated with antibiotics.

A formal guideline will be created for use in our ED. In communities where the incidence of rheumatic fever is low, a balance must be made between reducing symptoms by a modest amount and the emerging issue of antimicrobial resistance.

GP197 RAPID SPREAD OF MRSA CLONES IN A CLOSED ISRAELI COMMUNITY

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10.1136/archdischild-2019-epa.257

Introduction Rates of community acquired methicillin resistant staphylococcus aureus (MRSA) in Israel is quite low and estimated at the range of 3% out of staphylococcus aureus isolates.

This survey was undertaken due to clinical impression of significant rise at the rates of MRSA isolates during the last few years in a closed community in Israel.

Methods All community acquired staphylococcus aureus isolates from children referred to Mayenei Hayeshuah Hospital in Bnei Brak Israel during the years 2015–2018 were analyzed. This hospital serves a closed Ultraorthodox Jewish community characterized by crowdedness.

Results A total of 201 isolates were reviewed. Most isolates (163) were from skin and soft tissue specimens and the rest were from normally sterile fluids, urine and ear specimens.

The rates of MRSA isolates out of all staphylococcal isolates were 14%.

Most MRSA isolated were from the skin and soft tissue while none of the isolated from normally sterile fluid fluids grew out MRSA.

During the study years there was a dramatic rise at the rates of MRSA from 4% in 2015 to 23% in 2018. Children with MRSA infections were younger than those with methicillin sensitive staphylococcus aureus (MSSA) infection (mean ages were 2.9 years and 5.9 years in MRSA vs. MSSA infected children respectively, p<0.001).

Clindamycin inducible resistance was detected in 44% of MSSA isolates and in 7% of MRSA isolates.

Trimethoprim/sulfamethoxazole resistant was observed in 2% of MSSA and in 7% of MRSA isolates.

Conclusions These findings demonstrates the ability of MRSA clones to spread rapidly especially in a closed and crowded community.

Our findings also indicate that clindamycin is not an appropriate antibiotic for empiric treatment of staphylococcal infection unless administered with another anti staphylococcal agent.

In addition, the increased rate of trimethoprim/sulfamethoxazole resistant is worrisome and should be closely monitored.

GP198 SOMETHING WICKED THIS WAY COMES. THE FIRST PAEDIATRIC CASES OF ENTEROVIRUS D68-ASSOCIATED ACUTE FLACCID MYELITIS IN IRELAND

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Introduction Enterovirus (EV) D68 is a non-polio enterovirus closely related to rhinovirus. In contrast to the majority of EV, EV D68 is primarily a respiratory virus. However, like polio and EV D71, EV D68 displays neurotropism and the