Henoch-Schönlein Purpura:
- It is a non-thrombocytopenic, purpuric and systemic vasculitis of childhood.
- It is the most common systemic vasculitis of children between the ages of 2 and 10.
- It produces a constellation of symptoms including a purpuric rash on the lower extremities, abdominal pain, renal involvement, and arthritis.
- The outcome is typically very good with supportive care, but some cases may lead to long term morbidity, complications, and even death.
- The data on patient populations with this disease in the United States is rare, with most of the existing studies having been completed in Europe and the Middle East.
- While this study is ongoing, the purpose of the study to determine if a family history of autoimmune disease is a significant factor in developing Henoch-Schönlein Purpura, and how that affects the disease course including presence of complications.

OBJECTIVE AND AIMS

Objective:
To determine if a family history of autoimmune disease is a significant factor in developing Henoch-Schönlein Purpura, and how that affects the disease course including presence of complications.

Hypothesis:
If a patient has a family history of an autoimmune disease, then they will have a protracted disease course of Henoch-Schönlein Purpura.

Aims:
To determine if the presence of symptoms at 3 months, 6 months, 9 months, and 18 months after onset of disease is associated with a reported family history of autoimmune disease.

METHODS

- The charts of 100 patients who have been treated for Henoch-Schönlein Purpura in the last 7 years within the University of Missouri Healthcare System.
- For each patient the following was determined: age of onset of disease, a family history of autoimmune disease, what if any symptoms were present at 3 months, 6 months, 9 months, and 18 months after initial onset of disease, abnormal laboratory values, if they required hospitalization, and if they required intravenous steroids, methotrexate, intravenous immunoglobulin, rituximab, cyclophosphamide, or other medication.
- The data analysis was completed to compare the number of patients with and without a family history of autoimmune disease, and of those patients how many had symptoms at 3 months, 6 months, 9 months, and 18 months after initial onset of disease.

RESULTS

<table>
<thead>
<tr>
<th>PATIENTS WITH SYMPTOMS AT 3, 6, 9, AND 18 MONTH TIME POINTS</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Family History of Autoimmune Disease</td>
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<tr>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Total Patients</td>
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<tr>
<td>Symptoms present at 3 months (%)</td>
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<tr>
<td>Symptoms present at 6 months (%)</td>
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<tr>
<td>Symptoms present at 9 months (%)</td>
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<tr>
<td>Symptoms present at 18 months (%)</td>
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</tbody>
</table>

CONCLUSIONS

- Based on the statistical analysis completed at this point, there is a statistically significant difference between patients with and without a family history of autoimmune disease who have symptoms at 3 months, 6 months, and 18 months from initial onset of disease. This suggests that a family history of autoimmune disease is associated with a protracted disease course in Henoch-Schönlein Purpura.
- While these results are not enough to have any statistical power, they are encouraging that there is a possible association, therefore further research should be completed.

DISCUSSION

- A sample size of 100 is very small, which greatly diminishes the power of the study, therefore a larger sample size would greatly increase the power of the results.
- Many of the charts were completed before inquiry into family history was standard practice, therefore some patients may have a family history of autoimmune disease that was not reported. Also, because asking family history was not standardized before a couple years ago, often the information if it was asked was buried within the chart, therefore it is possible that some reported family history of autoimmune disease was missed.
- Going forward, excluding charts that did not have a family history reported as either positive or negative would help to minimize false negatives. There is potentially a high false negative rate due to patients not being asked or the data not being found in the chart.
- Future studies may look more closely at which symptoms if any were more closely associated with a family history of autoimmune disease, or if a family history of autoimmune disease is associated with increased incidence of disease.

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