Clinical and complementary studies findings in peripuberal females with otoneurological symptoms
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Conclusion
Female teenagers mean age was 13 and 50% of them had migraine as the most frequent comorbidity. Dizziness and vertigo were the most frequent consultation symptoms but headache and aural fullness were also frequent complaints. Higher electrocochleography values were described in girls whom menarche was earlier. Endolymphatic hydrops may be present in young girls with early menarche, otoneurological symptoms and migraine. However for an accurate descriptive analysis more patients are needed.

Introduction
Puberty is the period after childhood where sex hormones increase (estradiol in girls, testosterone in boys and adrenal hormones in both sexes) and physical changes occur, so as to acquire reproductive capacity. Argentinian Pediatric Society considers that it lasts between 8 and 13 years old in girls. Although vertigo and fullness are not common symptoms in general population, some girls in this age came to consultation at Buenos Aires British Hospital because of dizziness, vertigo and aural fullness. Suspected hydrops has been evaluated with Electrocochleography (EECoCHG). Being this population of girls not usually studied, we decided to analyze results.

Institution: Buenos Aires British Hospital – Argentina 2017.

Objective: To describe clinical and complementary studies in peripuberal females with otoneurological symptoms.

Methods: Retrospective study was performed. A case series was performed by a review of medical records of patients with otoneurological symptoms at the British Hospital of Buenos Aires, Argentina. Data were showed as median and quartiles. Spearman correlation was analyzed using graph pad prism 7.04.

Population: Female peripuberal patients between 9-16 years with otoneurological symptoms. No history of unknown hearing loss.

Results
This study included fourteen female patients, mean age 13.1 ±2. Menarche mean age 10.9 ±0.8.

<table>
<thead>
<tr>
<th>CONSULTATION AGE</th>
<th>MENARCHE AGE</th>
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<tbody>
<tr>
<td>25% PERCENTILE</td>
<td>10</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>13</td>
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<tr>
<td>75% PERCENTILE</td>
<td>14.5</td>
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Comorbidites were observed in 72% of patients:
* Migraine (50% of patients) according to ICHD criteria.
* Middle ear disease in childhood (15%).
* Hypothyroidism and retinoblastoma (7%).

Dizziness (35%) and vertigo (28%) were the most frequent consultation symptoms. Headache (64%) and aural fullness (35%) where also referred in exhaustive clinical history as annoying symptoms. None of the patients met criteria for Meniere Disease according the Classification Committee of Barany Society consensus 2015. Only three patients presented otoneurological symptoms before menarche and seven girls within 2 years after menarche.

SPEARMAN R = 0.5094
CONFIDENCE INTERVAL = 0.95
P (TWO TAILED) = 0.0648

Audiometric tests and C-VEMP results were normal. No statistically significant differences were found between abnormal and normal videonystagmographies results (43% vs 57%). Neither between normal and abnormal VHT.

Earlier menarche age showed association with higher ECoCHG results (PS/AP amplitude ratio >35%). Being weak in left ears and strong in right ears.

“Our research continues on this population in Argentina. New data is being collected and further analysis will be performed soon.”