**Pegvisomant home care program leading to rapid IGF-1 control can improve quality of life**

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**Abstract**

**BACKGROUND:** Pegvisomant has demonstrated efficacy in attaining IGF-1 normalisation in previously uncontrolled acromegalic patients. It works by blocking growth hormone (GH) action and reducing IGF-1 levels. The goal of the therapy is to achieve a normal serum IGF-1. A home care program might improve treatment compliance.

**OBJECTIVE:**

Evaluation of home educational program and quality of life (QoL) in 18 acromegalic patients with an inadequate response to surgery and/or radiation therapy and/or Somatostatin analogues (SSA), upon start and during treatment with pegvisomant.

**METHOD: HOME CARE PROGRAM**

**Day 1: 2 hours:**
- Acromegaly: Explaining disease
- Drug approach
- Discussing possible side effects
- Manipulation of the material, attention to sterility
- Practising with demo material
- PASQ (Patient-Assessed Acromegaly Symptom Questionnaire)
- Reporting to physician

**Day 2: 1 hour:**
- Discussing possible side effects
- Manipulation of the material, attention to sterility
- Practising with demo material
- Administering the injection: by patient
- Importance of adherence
- Dose titration
- Reporting to physician

**Day 3: 45 minutes:**
- Manipulation of the material, attention to sterility
- Practising with demo material
- Administering the injection: by patient
- Importance of adherence
- Dose titration
- PASQ
- Reporting to physician

**Day 7: 45 minutes:**
- Autonomy: Manipulation of the material & administering the injection: by patient
- Importance of adherence
- Dose titration
- PASQ
- Reporting to physician

**Day 30: 15 minutes**
- PASQ
- Reporting to physician

**6 weeks: 15 minutes**
- Dose titration
- Reporting to physician

**3 months: 15 minutes**
- Dose titration
- Reporting to physician

**4.5 months: 15 minutes**
- Dose titration
- Reporting to physician

**6 months: 15 minutes**
- PASQ
- Reporting to physician

**12 months: 15 minutes**
- PASQ
- Reporting to physician

**18 months: 15 minutes**
- Dose titration
- Reporting to physician

**RESULTS:**

- Associated treatments were long-acting SSA: octreotide LAR 30mg monthly (n=5), lanreotide 90mg monthly (n=4) and lanreotide 120mg monthly (n=9).

- In all participants, IGF-1 decreased (sometimes needing dose adjustment of pegvisomant from 10 mg OD to 30 mg OD).

<table>
<thead>
<tr>
<th></th>
<th>Baseline (n=18)</th>
<th>3 months (n=18)</th>
<th>4.5 months (n=12)</th>
<th>6 months (n=9)</th>
<th>12 months (n=11)</th>
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<tbody>
<tr>
<td>IGF-1 (mg/ml)</td>
<td>464 ± 262</td>
<td>221 ± 103</td>
<td>262 ± 236</td>
<td>249 ± 167</td>
<td>217 ± 136</td>
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- QoL improved significantly over time (p<0.001), based on decreased complaints of headache (p=0.002), perspiration (p=0.001), joint pain (p=0.007), fatigue (p=0.023) and soft tissue swelling (p=0.001). These improvements were durable up to month 18.

<table>
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<tr>
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<th>Baseline (n=11)</th>
<th>1 month (n=18)</th>
<th>6 months (n=15)</th>
<th>12 months (n=10)</th>
<th>18 months (n=9)</th>
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<tbody>
<tr>
<td>PASQ (0-8)</td>
<td>11 ± 7</td>
<td>7 ± 6</td>
<td>6 ± 6</td>
<td>6 ± 5</td>
<td>3 ± 3</td>
</tr>
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- Two adverse events were recorded: one hypoglycaemic episode in an insulin-treated woman with type 2 diabetes and one case of lipodystrophy. None of the patients discontinued pegvisomant.

- No drop-outs were observed.

**CONCLUSION:**

Working with a specialist nurse can help to improve QoL by attaining rapid IGF-1 normalisation, due to enhanced patients’ compliance. PASQ scores improved both on short and longer term.

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