## Treatment adherence to pegvisomant (somavert®) in Spain: PEGASO study

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**Introduction**: Pegvisomant (PEG, Somavert®) is a GH receptor antagonist widely used in the treatment of acromegaly to normalize IGF1 levels, reduce the signs and symptoms of the disease, and control associated comorbidities. There is a discrepancy between its efficacy reported in clinical trials and its effectiveness reported in the real world clinical setting (90-97% vs 67% patients with controlled IGF1 levels). The reason for this discrepancy is still unknown, but it is hypothesized that an insufficient dose escalation and a poor patient adherence to Pegvisomant may underlie in some cases.

**Aim:**Considering the chronic daily subcutaneous administration of PEG, patient adherence may have an impact in effectiveness not previously studied. This study was aimed to determine the prevalence of adherence to treatment in acromegalic patients treated with PEG in a real-world clinical setting in Spain. Other secondary objectives were to identify potential administration errors, to describe the patient satisfaction with medication, to assess the relationship between lack of adherence and disease control and to identify potential risk factors that predict poor patient adherence.

**Methodology:** Multicenter, observational, descriptive, cross-sectional study in adult acromegalic patients treated with PEG for at least 12 months in a real-world clinical setting in Spain. Patient adherence was indirectly determined by two questionnaires (Batalla's and Haynes-Sackett's) and a medication count. Patient satisfaction and self-perceived convenience was assessed with SATMED questionnaire and an ad-hoc Somavert® questionnaire respectively. Disease control was evaluated regarding signs and symptoms (PASQ) and IGF1 levels. Administration errors were determined by direct observation of patient administration of PEG.

**Results:** 108 patients were included in the analysis with a mean age of 55 years (60% women). 72.2% of patients had IGF1 levels < ULN. Mean daily dose of PEG was 15.20 mg. Patient adherence prevalence varied from 61 to 92% and did not correlate with disease control. Older patient age and other than daily PEG dosing schedule were associated with lower adherence. Satisfaction with medication was high (median score 74.58/100) as well as self-perceived convenience (median score 71.21/100). 34.3% of patients made a mistake during the administration process which was associated, although not significantly, with lower disease control.

**Conclusions:** Patient adherence to Pegvisomant was high (61-92%), but more than a third of the patients in the study made mistakes during the administration process, with a potential impact on disease control. Correct administration of medication is part of patient adherence to treatment and should be followed up as well as dosing compliance. Patient training on Pegvisomant administration may improve effectiveness of Pegvisomant.