Reviewer's report

Title: Two acromegalic women presenting reversible pegvisomant-related lipohypertrophy and its possible recurrence at the new site of injection, clinical and radiological evidence of body composition change: a case series

Version: 1 Date: 27 September 2011

Reviewer: Pietro Maffei

Which of the following following best describes what type of case report this is?: Unreported or unusual side effects or adverse interactions involving medications

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: No

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: Yes

Is the anonymity of the patient protected?: Yes

Comments to authors:

Dear Editor,

The manuscript by Dr V. Rochira et al. is rather interesting and report on a pegvisomant-related lipohypertrophy. The Authors present new data on lipohypertrophy disappearance. I have any major concern about this manuscript.

Minor concerns:
- Page 3; 7th line: “most common clinical relevant”. As far as I know increase of pituitary tumor size and headache are not so frequently observed during pegvisomant therapy. I agree they are clinically relevant.
- Page 5; 7th line: “cabergo”. I suggest to change with “cabergoline”.
- Page 6; line 8-13: The sentence is confusing. Do they always refer to patient 2 (as stated) ? or also to patient 1 ?
- Page 7; line 6-9: The Authors state that the period of injection over the thighs was shorter in comparison to the abdominal site. However, according to medical history phase 1 duration of patient 1 and 2 were 4 and 2 months respectively while phase 2 duration was 4 months in both subjects
- Table 1: it would be helpful to report body weight in phase 1 and 2 (both individuals)
- Table 1: it would be helpful to report DEXA total body fat and fat free mass (both individuals)
- Figure 1: the quality of the imagine does not allow a larger magnification view nor the reading of measurements
- Figure 1:
  o Abdomen: it seem to me that going from phase 1 to phase 2 there is a decrease of body fat of the anterior abdominal wall and an increase of body fat in the flanks-back areas. I suggest to measure the fat thickness also in these districts
  o The same observation at the leg level. I suggest to measure change in fat thickness also in the posterior surface of the thighs which seem to be increased as well.
- Discussion. According to possible new findings coming from the suggested measurements (Table 1, and Figure 1) the Authors could enlarge their discussion mentioning that treating acromegaly and obtaining IGF-I normalization might be also associated with a reduction of fat free mass and augmentation of total body fat mass, independently of therapy.
- Abstract conclusion: I think that in clinical practice the physical examination is enough for lipohypertrophy detection (I do not suggest radiological examination as a necessary investigation).

**Quality of written English:** Acceptable

**Declaration of competing interests:**

Yes:
- I received reimbursements and fees from Pfizer (which produce Pegvisomant)