Reviewer's report

Title: A 19yo male with Sickle Cell Disease Presenting with Spinal Infarction: a case report

Version: 4 Date: 29 April 2013

Reviewer: Javier Corral

Which of the following best describes what type of case report this is?: Unexpected or unusual presentations of a disease

Has the case been reported coherently?: No

Is the case report authentic?: Yes

Is the case report ethical?: No

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: No

Does the case report have diagnostic value?: No

Will the case report make a difference to clinical practice?: No

Is the anonymity of the patient protected?: Yes

Comments to authors:

This is the third description of a spinal cord infarct in a patient with sickle cell disease. Moreover, the patient is also carrier of the factor V Leiden prothrombotic polymorphism. Although no conclusions can be achieved from this case, the description is interesting.

The conclusion must be rewritten or deleted.

The authors must place correctly the references in the text. For example, the references for the two previous cases with spinal cord infarct and sickle cell disease must be reported once this statement is done, not only after the description of each case.

The authors must state that variations on the levels of different hemostatic
factors identified in sickle cell disease can also be a consequence of the disturbance caused by this disorder in the hemostatic system rather than the cause of the hypercoagulable state. Thus, deficiency of FVII in these patients unlikely will contribute to the risk of thrombosis observed in these patients.

The method used to diagnose the factor V Leiden should be indicated. Moreover, the genetic status of this polymorphism should be specified (probably heterozygous). Finally, it would be important to confirm the presence of this polymorphism in his relatives to validate it (particularly being an African-American).

Factor V Leiden will certainly increase the risk of thrombosis, also in this patient, and it might contribute to the development of the spinal cord infarct. But authors should explain why other polymorphisms associated with stroke risk in patients with sickle cell disease (ANXA2, TGFBR3, TEK; ADCY9) have not been evaluated.

Authors must clearly state in the manuscript that the case is the same than that described in the paper of Marquez et al. (Marquez et al. Clinical Imaging 36: 595-598, 2011). This is clear in the letter to the editor, but not in the manuscript. Change FVL by factor V Leiden.

Antithrombin III should be antithrombin

**Quality of written English:** Acceptable

**Declaration of competing interests:**

I have no conflict of interest.