Reply to: [Use of hydroxyurea from childhood to adult age in sickle cell disease: semen analysis. Haematologica 2008; 93:e67]

We read with great interest the observation by Lukusa and Vermylen of 4 patients with Sickle Cell Disease (SCD), treated by hydroxyurea (HU) in childhood and displaying severe impairment of spermatogenesis.

The adult male patients, in the series we have reported (Haematologica, 2008, 93:988-93), were aged 11 to 48 years at the onset of the treatment. HU therapy lead to an exacerbation of the alterations of sperm parameters due to SCD itself.

The only patient who started HU before puberty (11 years) had a severe ologozoospermia 3 years after stopping HU treatment. The patient who was azoospermic 4 years after cessation of HU had started at 28.

The data by Lukusa and Vermylen are far from reassuring as they suggest that initiation of HU before puberty might be even more detrimental for spermatogenesis than in post-puberty. The consequence would be also more drastic on the future fertility of such patients as sperm cryopreservation is not possible before 13-15 years and immature testicular freezing is still an experimental procedure.

This observation by Lukusa and Vermylen reinforces the need for individual prospective follow-up as well as rapid assessment of fertility in male SCD patients treated by HU; appropriate counselling of adult patients before any treatment in order to evaluate sperm quality and propose sperm cryostorage; appropriate counselling of parents when HU is initiated in childhood, despite the risk of treatment's refusal.

Alternate therapeutic procedures, such as chronic transfusion, might be proposed until puberty.

I. Berthaut, R. Girot, J. Mandelbaum

Hôpital Tenon, Paris, France

Haematologica 2008; 93:e68. doi: 10.3324/haematol.13804