

The answers are a definite YES to (i, ii and iii) and a very clear NO to (iv). Regarding (v), for decades our obstetrician colleagues have been advising, that on which days and how frequently coitus is to be done, in the management of anovulatory infertility, with drugs like clomiphene. Moreover some sort of mental and physical relaxation/drugs before the act are also prescribed, with an advice to remain lying down relaxed for sometime after the act with pelvis lifted up. If that is okay, and has been accepted as a beneficial and essential healthy practice by society at large, we feel that objections to this new method, (when taken with an appropriate and healthy thinking, which one should) are unfounded. It can be advised freely, of course, only whenever necessary.

ANAND JAIN AND \*S JAIN  
 Departments of Pediatrics and  
 \*Obstetrics and Gynaecology,  
 VCSGGMS&RI and Government Medical College,  
 Srinagar 246 174, (Uttarakhand), India.  
 drjain\_anand@yahoo.com

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## Avascular Necrosis of Hip Following Combined Protein C and Protein S Deficiency

The usual predisposing factors for avascular necrosis of femoral head are immobilization, prolonged steroid use, oral contraceptives, and sickle cell anemia [1].

A seven year old girl presented with severe pain in left lower leg for six days following a trivial fall. The patient was admitted in the past to the same institute with features of deep vein thrombosis and after extensive investigations was diagnosed to be having protein C and protein S deficiency. During that episode, the patient was managed with low molecular weight heparin, fresh frozen plasma in the acute stage and was discharged with advice of oral anticoagulant warfarin to maintain INR around 2.5 [2]. She stopped medication after a few days and was lost to follow up. She came with the above features after six months. On examination, the patient had fever and restriction of movement of left hip joint. There was no swelling of that limb or venous engorgement unlike the previous episode [2]. Homan's sign was negative. Peripheral arterial pulses were normal.

As the patient was a known case of thrombophilia due to protein C and protein S deficiency, ultrasonography of left thigh was done to rule out recurrence, which was normal. X-ray of the left hip joint showed avascular necrosis of the left femoral head. MRI of that joint confirmed the diagnosis. Protein C and Protein S levels during this episode were 52 units/ml (N 67-195 units/mL) and protein S was 28 units/mL (N 55-123 units/mL),

respectively. The patient was put on oral warfarin and referred to our orthopaedic colleagues.

The association between osteonecrosis of the femoral head and thrombophilia was first postulated by Glueck in 1994 [3]. Levin, *et al.* [4] described Legg-Calvé-Perthes disease associated with protein C deficiency and beta-thalassemia major in two children among a cohort of 79 beta-thalassemia patients treated. Other recent literature also suggest an association [4]. However, in a recent meta-analysis published in 2008, the authors' concluded that there were insufficient evidence to support the hypothesis that protein C deficiency is associated with Perthes disease but it may play an important role in the etiopathogenesis of avascular necrosis of the femoral head in childhood [5].

MADHUMITA NANDI AND \*RAKESH MONDAL  
 From the Department of Pediatrics, IPGMER Kolkata  
 and \*Department of Pediatrics, NBMCH, Darjeeling,  
 Kolkata, India.

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