

Pulmonary emboli following oral contraceptive misuse and long air travel

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Sir,

We read the article "oral contraceptive misuse as a risk factor for cerebral venous and sinus thrombosis" by "Saadat-niya *et al*," which has been published in the recent issue of your journal.^[1] It was a very interesting article. As it was emphasized in the article, taking oral contraceptives has been increasing to a great extent in Iran in recent years and more than 2/3 of women at fertility age do so.^[1,2] Although the main goal of taking such pills is to postpone conception and control population growth, these pills are also being used to postpone menstruation during the blessed Ramadan month and Mecca (Haj) pilgrimage.^[1] After the Advantageous Mecca pilgrimage (Haj-e-tamatto) of last year (2011), a 38-year-old woman with deep vein thrombosis of the left leg was hospitalized in the cardiology ward of Valli-e-asr hospital in Birjand. Misuse of oral contraceptives (two times the normal dose) for two months and long-time flight jounries were considered to be the underlying causes. On the second day, because of not taking complete bedrest, acute pulmonary emboli (PE) was occurred. PE was diagnosed timely and confirmed through transthorasic echocardiography and CT angiography. The patient was administered thrombolytic drugs and now, while she is feeling well, is using warfarin.

Misuse and taking without a physician's prescription of oral contraceptives, usually with over-normal dose, occurred and this intensified the side-effects of these drugs.^[1,3] One of the most important side effects of such pills concerns the cardiovascular system. The incidence of venous thromboembolism (VTE) in healthy women is 4-5/10000 per year, but the risk reaches 9-10/10000 women per year among those taking oral contraceptives; and if other risk factors like sedentary lifestyle are added the chance of thromboembolism further increases.^[4] Various studies have been conducted to explore the relationship between long flight journey and thromboembolism, in the majority of which such a relationship has been observed. This risk further increases if other predisposing factors such as sitting position of the passenger, inactivity, relative hypoxia, dehydration following taking diuretics like tea, and hot weather.^[5] Therefore, these factors should be considered in any long lasting trip.^[5]

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