resorption of our animal model was further repressed than those used in Lomashvili's experiments.[4]

The mechanism of FMC generation remains uncertain. Although the formation of FMC might be just a physicochemical phenomenon related to ambient phosphate and calcium levels, we speculate that some other factors should participate in FMC formation because of the following two findings. First, using mass spectrometry, we found similar FMC in the serum of a hemodialysis patient whose adjusted serum calcium and phosphate levels were only 10.6 mg per 100 ml and 6.0 mg per 100 ml, respectively. Second, the maneuver of centrifugation reduced the level of fetuin-A from 0.807 g/l to 0.211 g/l in the sera of 20 diabetic chronic kidney disease stage 4 patients who had coronary artery calcification detected by computed tomography, suggesting the presence of FMC even in normal ranges of calcium and phosphate. (Mikami *et al.* American Society of Nephrology 2007 presentation; *J Am Soc Nephrol* 18. 747A, 2007).

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Enterovesical fistula and roundworms

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Gupta *et al.*[1] describe a man with urinary obstruction due to the presence of *Ascaris lumbricoides*. No further investigation was conducted to determine why such roundworms were present in the urinary system. The life cycle of *A. lumbricoides* in humans is spent only in respiratory and gastrointestinal tracts.[2] Enterovesical fistula is possible, and the common causes for such fistulas, e.g. colon cancer and sigmoid diverticulitis, may present in the patient.[3] Failure to perform further investigations on this aspect would delay the diagnosis and management of a treatable disorder.

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Complications impair the usefulness and validity of the rat tail arteriovenous fistula model

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To the Editor: We wish to follow up the report of a new rat tail model of the hemodialysis arteriovenous fistula (AVF).[1] Such models are potentially important because maturation failure of AVFs is a major unsolved problem. Lin *et al.*[1] reported 5/5 successful operations in which the lateral vein was anastomosed end-to-side to the ventral artery. We report our experience in creating 27 such AVFs.

We have found that technical problems limit the usefulness of this model. Sample tail fistulas were dissected several weeks after AVF, and dense scar tissue (adhesions) encased the arteries and veins. These adhesions compressed the vessels and likely altered the flow characteristics. Other obstacles encountered included thrombosis and dessication. We found that systemic heparinization before the procedure and minimization of vessel occlusion time reduced the risk of thrombosis. Compromise of the wound closure, anastamotic compression, and alteration of blood vessel elasticity resulted when meticulous attention was not paid to ensuring that the tissue was sufficiently moist.

We concur that the tail fistula is technically feasible; however, a technically successful tail fistula is subjected to external forces that compromise flow characteristics, thereby calling into question the validity of this model. Turbulence and low shear stress are believed to induce stenosis in AVFs, rendering adhesion avoidance crucial to the application of the tail fistula as a model of hemodialysis access dysfunction.

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