Letters

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Fetal malformations associated with mycophenolate mofetil for lupus nephritis

Sir,

Mycophenolate mofetil (MMF) has become a major therapeutic option as an induction and maintenance therapy for lupus nephritis [1,2]. Many patients with lupus are women of child-bearing age, so the issue of teratogenicity associated with MMF is important. MMF has been classified as category C by the American Food and Drug Administration. In other words, animal reproductive studies have shown an effect, but the required human reproductive studies are lacking; however, the potential clinical benefits may warrant the use of MMF during pregnancy, despite the potential risk.

In a recent paper, Sifontis et al. [3] analysed the outcomes of pregnancies in patients who had received solid organ transplants, and were also exposed to MMF. The rate of live births was 57.7%, and 26.7% (4 cases) of the live births had structural malformations. Combining these four cases with another reported case [4], recurrent structural malformations can be identified: microtia (4/5), cleft lip and palate (3/5). There are also other birth-associated defects, including hypoplastic nails, shortened fingers, external auditory duct atresia, diaphragmatic hernias and heart malformations. Despite this recurrent pattern, the authors suggest that the multiplicity of medications in transplant recipients may be involved, and particularly the fact that MMF is always associated with calcineurin inhibitors, drugs also classified in category C. The effects of MMF during pregnancy may be assessed by studying a non-transplant, MMF-exposed population.

Here we report a case of a 21-year-old woman who had two flares of class IV lupus nephritis, treated in 2003 and 2005 by 6-month courses of intravenous cyclophosphamide. The lupus was in remission after the last course of cyclophosphamide. She had been on MMF maintenance therapy (1000 mg b.i.d) for 10 months when pregnancy was discovered at 25 weeks gestation. She was also receiving prednisone, hydroxychloroquine and perindopril. The pregnancy was terminated because fetal ultrasonography showed multiple malformations. The fetopathy examination showed multiple defects affecting the head (bilateral anotia, external auditory duct atresia), lower limb (polydactyly and nail hypoplasia), heart (anterior positioning of the aorta, interventricular communication) and kidneys (asymmetry). Cytogenetic studies revealed a normal karyotype.

Several studies have shown safety of hydroxychloroquine during pregnancy [5]. Exposure to perindopril, an angiotensin-converting enzyme (ACE) inhibitor, in the first trimester may explain the heart and kidney malformations [6]. However, we also observed malformations, including microtia, external auditory duct atresia and limb abnormalities, similar to those reported in transplant recipients receiving MMF, but not in patients receiving ACE inhibitors. To our knowledge, this is the first case to illustrate the teratogenicity of MMF alone, when treating lupus nephritis. The European recommendations for organ recipients should, therefore, also be applied to women suffering from rheumatological disease treated with MMF [7]. A different immunosuppressive agent should be used from at least 6 weeks before conception. Azathioprine, a drug that is not teratogenic, appears to be the best alternative for treating lupus nephritis.

Conflict of interest statement. None declared.

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Is implanto-prosthodontic treatment available for haemodialysis patients?

Sir,

Dental problems and complications in renal patients are infrequently discussed in nephrological journals. In this context, the appearance of two publications (Original Article and Editorial Comment) dedicated to this underestimated, but very important problem in NDT seems a very positive exception [1,2]. Underdiagnosed and untreated