corrects it to reach estimates of P(C). It gives a point estimate of the probability P(C/S), as well as the whole probability distribution of this parameter (as its posterior distribution within a Bayesian framework) that can be summarized by quantiles or credibility intervals (Figure 1).

In conclusion, we propose that the medical response in forensic age estimation could be expressed as a probability distribution and we provide a method to reach this goal. By the way it estimates the probabilities P(C), the proposed option takes into account the time when the medico-legal expert intervenes in the investigation process. This option, in accordance with a basic ethical practice in medicine, also allows the examined subjects’ position regarding their age to be partly taken into account.

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Inefficacy of plasma exchanges associated to rituximab in refractory obstetrical antiphospholipid syndrome

Inefficacité des échanges plasmatiques associés au rituximab dans le syndrome des antiphospholipides réfractaire

Obstetrical antiphospholipid syndrome (oAPS) associates the presence of pregnancy morbidity and antiphospholipid antibodies (aPL). The conventional treatment with low-dose aspirin and low-weight molecular heparin is highly effective, but in few cases oAPS may be refractory [1]. In these cases, second line treatments, including plasma exchange have been used. The rational behind aphaeretic treatments would be the removal of aPL, whose detrimental role seems due to the interference on trophoblast invasiveness and placentation [2]. Several reports showed the efficacy of rituximab in APS, but data in oAPS are lacking. We present the first case of refractory oAPS treated by the association of rituximab and plasma exchanges during pregnancy.

Case report

A 27-year-old woman with the diagnosis of mild articular lupus well-controlled by hydroxychloroquine was referred for pregnancy morbidity. She presented a foetal death at 15th weeks of gestation during her first pregnancy and persistent lupus anticoagulant (LA) and anticardiolipin IgG (aCL) antibodies were detected. She experienced another foetal death at 19 weeks and a pregnancy loss at 24 weeks due to severe preclampsia and fetal growth restriction, despite treatment associating low-dose aspirin (100 mg/day), prednisone (10 mg/day), hydroxychloroquine (400 mg/day), low-molecular weight heparin (enoxaparine 6000 UI every 12 hours) and monthly intravenous immunoglobulins (1 g/kg). She was referred again pregnant at 6 weeks and the previously described treatment was started, to
which was associated plasma exchanges since 6 weeks (8 in total). Rituximab was introduced at 12 weeks (1 g at day 1 and day 15). The outcome was marked by incoercible vomiting with severe weight loss (-12 kg) and hyperemesis gravidarum was diagnosed. At this time, the blood hydroxychloroquine concentration was under the therapeutic levels. Rehydration and vitamin supplementation were administrated with significant improvement of hyperemesis gravidarum at 12 weeks. At 19 weeks, color Doppler assessment showed high bilateral uterine artery resistance and marked notches, associated with severe intrauterine growth restriction (figures 1 and 2). The foetal death occurred at the 21 weeks. Placental histologic inspection showed a severe hypotrophy with marked vascular lesions and diffuse infarcts.

**Discussion**

Treatment of refractory oAPS is challenging. In second line, several reports showed the benefit of plasma exchanges in refractory oAPS [3,4]. In a recent study, the plasma exchanges effectively diminished the levels of aPL and the antibodies’ removal could argue for the efficacy of plasma exchanges in these cases [5]. B-cells have been shown to be involved in aPL-related clinical events [6,7]. Moreover, some reports suggested the efficacy of rituximab in non-criteria aPL manifestations [8]. Because of the absence of immunomodulation by plasma exchange therapy in previously intensively treated pregnancies, B-cell targeting therapy by rituximab was associated in this refractory oAPS. Several reasons could be raised to explain the pregnancy loss in our patient despite this treatment. Hydroxychloroquine could be useful in refractory oAPS and the occurrence of severe hyperemesis gravidarum, which challenge the treatment absorption, could be implicated in our case [9]. As plasma exchange were used concomitantly to the rituximab, the partial clearance of rituximab may explain the rituximab failure. As rituximab was initiated at the 2nd trimester in our case, the benefit of preconceptual treatment in patients with recurrent early fetal loss pregnancy morbidity could be interesting to study.

**Disclosure of interest:** the authors declare that they have no conflicts of interest concerning this article.

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Potential role of parasitosis in tumorigenesis: Case study of heart metastasis as the only presenting symptom of an ileal neuroendocrine tumor

Une parasitose peut-elle être impliquée dans la tumorigénèse ? À propos d'un cas de métastase cardiaque unique révélatrice d'une tumeur neuroendocrine iléale

Case report
A 56-year-old male patient with an unremarkable medical history, other than a 40-pack-year history of cigarette smoking stopped one year earlier, was hospitalized for chest pain that had occurred over the previous 2 days, radiating to the jaw and both upper extremities. The electrocardiogram showed non-specific repolarization disorder, and the laboratory test results a slightly high troponin level, moderate leukocytosis and increased CRP (C-reactive protein) of 174 mg/L (normal < 6). The diagnosis of myopericarditis was considered; however, transthoracic echocardiogram found an infiltrating homogenous tissue-like mass, with little vascularization, measuring 35 mm. Cardiac CT scan (figure 1A) clarified its localization at the postero-inferior part of the interatrial septum, limited to the exterior by the pericardium and displacing the inferior vena cava and the postero-inferior part of the atria. Cardiac MRI confirmed a T1-hypointense lesion with circumferential gadolinium contrast uptake. The cardiac valves were normal. An abdominal CT scan, used for investigating other tumor locations, revealed two mesenteric adenopathies, 1 cm in size. Surgical excision of the cardiac mass was performed. The pathology findings on the surgical specimen concluded that it was a well-differentiated neuroendocrine tumor, 45 mm in size, which had positive immunohistochemical staining for anti-cytokeratin, anti-chromogranin A and anti-synaptophysin antibodies (figure 2). The Ki-67 labelling index was 4%. It was probably a secondary location, since primary cardiac neuroendocrine tumors have exceptionally been described (2 cases reported). Scintigraphy of somatostatin receptors (Octreoscan®) was normal, but 18F-FDG positron emission tomography (PET), which has a better sensitivity, showed a high ileal uptake (figure 1B). CT enterography confirmed the presence of a 15 mm ileal endoluminal lesion associated with centimetre-sized adenopathies, with no liver lesions found on CT, MRI, Octreoscan® or FDG-PET. Levels of neuroendocrine tumor biomarkers were increased in the blood but not in urine (table 1). The patient had a right ileocolicectomy in which a 15 mm lesion was removed; this was found to be a well-differentiated neuroendocrine carcinoma extending from the submucosal to the subserosal layers and associated with four lymph node metastases. Tumor proliferation expressed in the same manner as anti-chromogranin A and anti-synaptophysin antibody metastasis. The Ki-67 labelling index was 8.7%, with a mitotic index of 18 at the highest power field. Liver biopsy showed no metastasis. In conclusion, this was a neuroendocrine tumor that was grade 2 (according to the 2010 WHO classification) and stage pT3N1M1 according to the 7th edition of the 2007 TNM and ENETS classification.

Of note was the fortuitous discovery, during the macroscopic exam of the surgical specimen, of a parasite in the small intestine, Taenia saginata (figure 3). An anti-secretory and anti-tumor treatment with lanreotide was started as first line treatment after multidisciplinary consultation. Re-evaluation after 12 months of treatment showed two images on FDOPA PET, one costal (figure 1C) and the other parastral. A third suspicious focal point appeared in the para-rectal fossa, which could not however be confirmed after 2 fine needle aspiration attempts guided with endoscopic ultrasound (figure 1D). The treatment with lanreotide was increased, and diphosphonate treatment courses were started. Four years