We present the anesthetic management of a 38 weeks parturient with Behcet’s Disease (BD) complicated by a suspected arhythmogenic right ventricular dysplasia (ARVD) undergoing labour epidural analgesia. A 31-year-old nulliparous patient with BD was hospitalized and labour induction was started. Twenty four hours later after the administration of misoprostol, active labour began and the patient was admitted in the delivery room. Once requested, epidural analgesia was performed without complications. Although a spinal technique for an urgent cesarean section and an epidural
anesthesia for endovascular repair of abdominal aortic aneurysms have been already presented in the literature [1], this is the first report describing epidural analgesia for vaginal delivery in a patient with BD and suspected ARVD.

The patient was referred to our Anesthesia Preadmission Clinic at 35 weeks of gestation for suspected ARVD complicating BD. She weight 67 kg and was 156 cm in height (body mass index 27.57 kg/m²). At the age of 4 she had been diagnosed with BD characterized by oral and genital ulcers, folliculitis, erythema nodosus, bowel inflammatory disease and at the age of 15 she had been diagnosed with an arm thrombosis. At the age of 16 an ECG-stress test for competitive sports showed T negative waves from V1 to V4 and non-sustained ventricular tachycardia and an ARVD suspicion was set. A clear ARVD diagnosis through Cardiac magnetic resonance imaging (MRI) or endocardial biopsy has never been made. The patient presented just an echocardiography documenting mild apical hypokinesia of the right ventricle and nonspecific hypoechogenic pericardial image beside the apex of the right ventricle. The cardiology center where she was treated since a teenager suggested an elective cesarean section despite the unclear diagnosis of ARVD. The patient presented gastrointestinal symptoms, oral ulcers and arthralgia for which she started steroids therapy (prednisone 25 mg) since 33th week of gestation with symptoms improvement. She had mild dyspnea without other cardiovascular symptoms during the last two weeks. At 35 weeks cardiologic and rheumatologic evaluation were planned. Rheumatologic consultation confirmed current steroids therapy and didn’t set any contraindication to vaginal delivery. After a 12-leads ECG documenting synus rhythm, T waves anomalies in inferior leads, a trans-thoracic Echocardiogram showing normal systolic function (ejection fraction 66%), with limited lower septum akynesia and right ventricle middle-apical slight ectasia with tricuspid annular plane systolic excursion 22 mm and a 24 hours Holter ECG with infrequent ventricular and sopranventricular ectopic beats, cardiological consultation concluded that in absence of an obvious arrhythmic burden and without clear MRI signs of ARVD
there were no cardiological contraindication for vaginal delivery. The patient was discharged and a hospitalization at 38 weeks for labor induction was planned.

After hospital readmission at 38 weeks, new anesthesiologic assessment was made. It focused on systems potentially affected by BD as the airway, nervous system and, given the patient's medical history, on the cardiovascular system. No difficulties were predicted in airway management and no pathological findings were detected on neurological assessment. Cardiac involvement partially confirmed by previous cardiologic consultation did not represent a contraindication to epidural analgesia. Preoperative blood results were within normal ranges. The patient requested epidural analgesia which was performed at first attempt at the L3-L4 level with a Thuoy 18 G needle. An epidural catheter was inserted and 20 ml 0.1% ropivacaine and sufentanil 10 μg were administered. Adequate analgesia was achieved in 15 minutes. After 2 hours, with completed cervical dilatation, 15 ml 0.15% ropivacaine were administered and the delivery was carried out uneventfully after 30 minutes. The postpartum period was uneventful. During the puerperium 12-leads ECG, transthoracic echocardiogram and Holter-ECG substantially confirmed prepartum results except for rare ventricular ectopic beats and beta-blocker therapy was prescribed. The patient was discharged with her baby 5 days after delivery in good health. Three weeks later she did not report neurological, cardiological complication or skin changes at the sites of intravenous cannula or epidural catheter placement.

BD is a chronic inflammatory disorder characterized by widespread vasculitis with recurrent oral and genital ulcers and ocular symptoms as well as musculoskeletal, neurological, cardiac, pulmonary, and gastrointestinal system involvement. “Neuro-Behcet” [2] is a difficult diagnosis, so neurological life-threatening involvement cannot be totally excluded. Cardiac involvement may occur as endocarditis, myocarditis, pericarditis, intracardiac thrombosis, endomyocardial fibrosis, and valve diseases [3].
Endomyocardial involvement typically manifests as fibrosis on the right and/or left heart [4]. Pregnancy has a positive effect on BD. Muco-cutaneous ulcerations are the most common flares [5].

A planned anesthesia management for a BD patient with endomyocardial involvement is challenging and with due emphasis on airway, hemodynamics, and possible neuraxial manifestations can result in a favorable outcome. Airway management could be difficult owing to the oropharyngeal soft tissues ulcerations. Neuraxial techniques should be considered in patients without clinical signs or history of central nervous system involvement. Once a BD diagnosis has been made, an accurate cardiovascular evaluation should be made to exclude pericarditis, endocarditis, intracardiac thrombosis, myocardial infarction, endomyocardial fibrosis, and myocardial aneurysm.

In conclusion epidural analgesia was safe and effective for our patient with BD but we recommend that anesthetic management should be tailored on a case-by-case basis, keeping all implications of Behcet’s disease in mind.

References


