Antenatal ultrasonographic diagnosis of diastematomyelia

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Objective
To evaluate the performance of prenatal ultrasonographic diagnosis of diastematomyelia.

Methods
This study included 6 fetuses with suspected diastematomyelia based on prenatal ultrasonography performed in the service C, in the National Center of Maternity and Neonatology of Tunis, between January 2013, and September 2018. The mean age of the selected pregnant women was 28.3 years, with a range between 19 and 34 years. The mean gestational age was 26.1 weeks, with a range between 17 and 34 weeks.

Results
In the six cases of diastematomyelia diagnosed by prenatal ultrasonography, four were confirmed by Magnetic resonance imaging (MRI), and the other two were confirmed by autopsy and pathologic examination after abortion. Varying degrees of spine or spinal cord deformities were noted. The pregnancies were terminated in all the cases with multiple spinal deformity, due to poor prognosis. The sonographic features of diastematomyelia are summarized as follows, based on the comparison of ultrasonographic and MRI images. Ultrasonography was not as good as Magnetic resonance imaging (MRI) in illustrating the spinal dura mater, and thus could not accurately detect the type of diastematomyelia. However, ultrasonography was better in showing the central canal compared with magnetic resonance imaging MRI.

Conclusion
Prenatal ultrasonography contributes to the diagnosis of diastematomyelia and has provided a reliable basis for prenatal consulting and prognosis of malformations, and thereby has reduced the incidence of serious deformities and complications of the spine and spinal cord.