Objective:
To describe the imaging characteristic of Joubert syndrome in fetuses by ultrasound and MRI.

Materials and methods:
We report a series of three fetuses with Joubert syndrome in Hubei Maternal and children’s hospital from January, 2012 to March 2015. All the mothers undertook the prenatal ultrasound. Two of the babies undertook prenatal MRI and were aborted subsequently; one live delivering baby took MRI after birth.

Results:
One baby was correctly diagnosed by both ultrasound and prenatal MRI. One baby was diagnosed only by MRI. And one living baby was misdiagnosed by ultrasound.

Conclusion:
Prenatal ultrasound could discover the Joubert syndrome in the case of paying special attention to. But in most cases, Joubert syndrome could be missed. Sonographer should realize the typical sign of Joubert syndrome, and prenatal MRI is necessary when the imaging is atypical.