



## A case of primitive neuroectodermal brain tumor

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### Objective

To present this rare condition of brain tumor in a fetus and the correlation of ultrasound and magnetic resonance imaging (MRI) characteristics with the postmortem histopathology and immunohistochemical analysis of the tumor.

### Methods

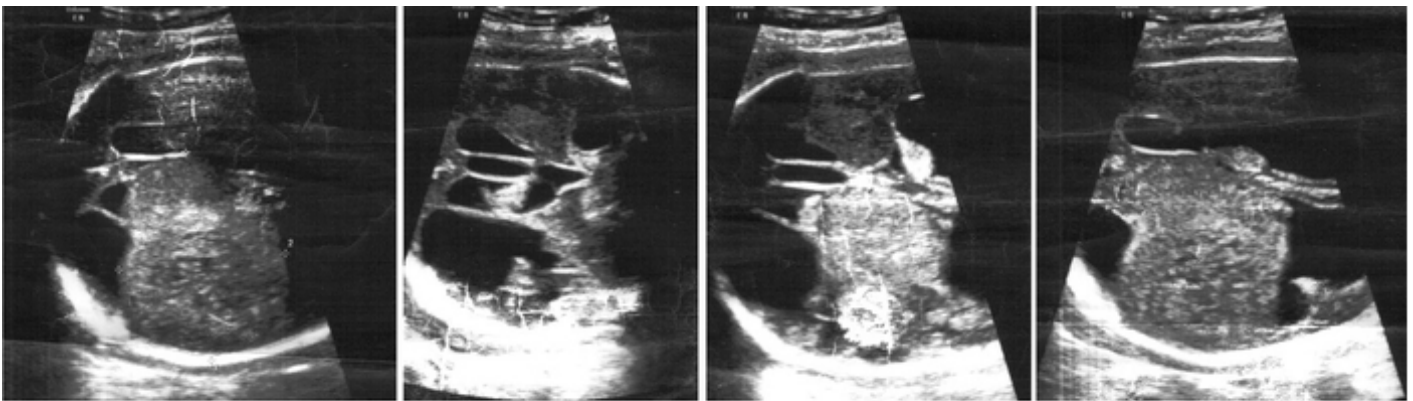
This is a case report.

### Results

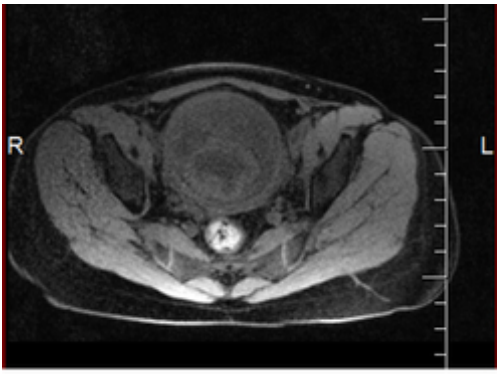
While performing an ultrasound on a singleton pregnancy, an heterogenous tumor - like mass, with dimension around 70 mm, located at the right brain hemisphere was detected. There was right ventriculomegaly of 26 mm and shift of the cerebral falx to the left. MRI was performed and raised suspicion of primitive neuroectodermal brain tumor (PNET) or Glioblastoma. In T2 transverse plane a tumor lesion with heterogenous signals was found, consisting of solid anechoic and peripheral cystic components. In addition, dysgenesis of corpus callosum was detected, as well as hydrocephalus with chamber width of 29 mm. The parents decided to terminate the pregnancy. The woman delivered a stillbirth male fetus weighing 1700 grams and 42cm long. The histopathological report after immunohistochemical analysis confirmed the diagnosis of supratentorial PNET from glial and neuronal origin (Vimentin (+), S100 (+), CD34 (-), GFAP (+), Actin (-/+), Desmin (-), CD99 (-), EMA (-), CKWS (-), Chromogranin (-), NSE (+), WT1 (+), Synaptophysin: positive single cells and Ki 67 proliferative index: 2-3%).

### Conclusion

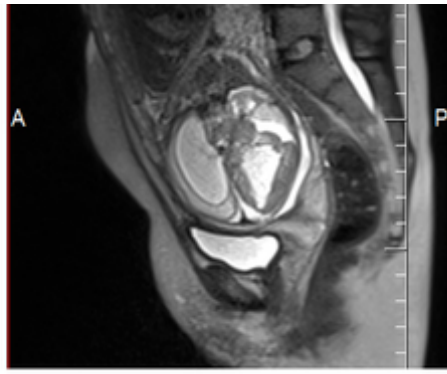
Tumor - like head lesions are difficult to diagnose with precision prenatally, due to their origin diversity. Tuberosus sclerosis or in utero brain thrombosis and hemorrhage need to be excluded. This condition should be diagnosed as early as possible before fetal viability and therefore, all available imaging techniques for diagnosis should be employed.



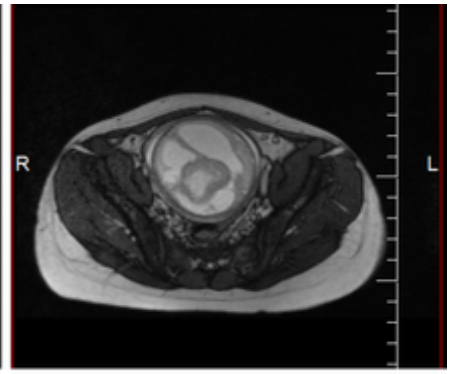
ZJU Klinika za Ginekologija		Date of Exam: 23.03.2016		Page: 1/7	
Name: Ali Kimit		DOB: [redacted]		Sex: Female	
Mat. ID: 012875-16-03-25-5		Mat. Hgt: [redacted]		Mat. Wgt: [redacted]	
Indication: [redacted]		Gest. Age: 13.06.2016		G: AS	
LMP: 07.09.2015		Gest. Age: 07.06.2016		P: Ec	
Gest. Age: 28w3d		Gest. Age: 28w3d		GP: Williams	
EFW (Hadlock): 1347g		Age: 28w3d		GP: Williams	
ACBPO/FL/HC		Age: 28w3d		GP: Williams	
2D Measurements: AUA		Math: GP		Age	
BPD (Hamman)	8.33 cm	8.33	mm	+95.0%	31w3d
OFD (HC)	107.1 cm	30.73	mm		
HC (Hadlock)	30.24 cm	30.24	mm	+97.7%	33w4d
HC* (Hadlock)	30.03 cm	30.03	mm	+97.7%	33w2d
AC (Hadlock)	24.50 cm	24.50	mm	48.4%	29w5d
FL (Hadlock)	5.19 cm	5.19	mm	14.0%	27w3d
HL (Dewani)	4.64 cm	4.64	mm	13.0%	27w3d
Cereb. Isthm	3.29 cm	3.29	mm	36.9%	28w3d
2D Calculations		FL/BPD		62% (71 - 87%)	
C1 (BPD/OFD)	78% (70 - 84%)	FL/AC		23% (20 - 24%)	
C2 (FL/HC)	17% (19 - 23%)				



T1 axial fat sat



T2 HASTE cor. ramnina



T2 Truffi transferzal

