

论著·临床研究 doi:10.3969/j.issn.1671-8348.2021.10.021

网络首发 [https://kns.cnki.net/kcms/detail/50.1097.R.20210114.1333.016.html\(2021-01-15\)](https://kns.cnki.net/kcms/detail/50.1097.R.20210114.1333.016.html(2021-01-15))

胎儿颅内畸胎瘤 1 例报道并文献复习^{*}

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[摘要] **目的** 探讨胎儿颅内畸胎瘤的临床表现、影像学及病理组织学特征,诊断、鉴别诊断及治疗。**方法** 分析重庆市江津区中心医院妇产科收治的 1 例胎儿颅内畸胎瘤终止妊娠患者的临床资料并进行文献复习。**结果** 患者 B 超检查结果提示,胎儿颅内偏左侧至颈部可见大小约 4.6 cm×4.1 cm 囊实性混合回声,内部回声不均匀,可见大小不等片状无回声区及较多点状强回声,彩色多普勒血流成像(CDFI)显示,实性,部分可见丰富的血流信号,并可探及搏动性血流频谱,考虑畸胎瘤恶性可能性大。行依沙吖啶 100 mg 羊膜腔内注射引产,经阴道娩出 1 男性死胎,外观见左侧头颈部一包块,向外突出。死胎巨检发现左侧头颅至颈部矢状切面一肿物(4.5 cm×4.0 cm×3.0 cm),切面实性,灰白,稚嫩。病理检查发现软骨、肌肉、上皮和原始神经管等多胚层组织,考虑未成熟畸胎瘤。**结论** 胎儿颅内畸胎瘤罕见,病死率高,终止妊娠是主要治疗手段。

[关键词] 畸胎瘤;颅内;胎儿;治疗;预后
[中图法分类号] R714.53 **[文献标识码]** A **[文章编号]** 1671-8348(2021)10-1712-03

Report of fetal intracranial teratoma in 1 case and literature review^{*}

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[Abstract] **Objective** To investigate the clinical manifestations, imaging features, histopathological features, diagnosis, differential diagnosis and treatment of fetal intracranial teratoma. **Methods** The clinical data of 1 patient with terminated pregnancy due to fetal intracranial teratoma admitted to the gynecology and obstetrics department of Jiangjin District Central Hospital were analyzed and the literatures were reviewed. **Results** The B-ultrasound examination results showed that the cystic-solid mixed echo with a size of 4.6 cm×4.1 cm was observed from the left side of the fetal skull to the neck. The internal echo is not uniform. The unequal sizes of patchy anechoic areas were seen, moreover there were more point-like strong echos. The color Doppler flow imaging (CDFI) showed the solid property and there were abundant blood flow signals in the part, and pulsatile blood flow spectrum could be detected. The possibility of malignant teratoma was considered. The induced labor was conducted with 100 mg ethacridine by intra amniotic injection, one male stillbirth was delivered through vagina. The appearance showed a mass protruding outward in the left of the head. The stillbirth autopsy found that there was a mass (4.5 cm×4.0 cm×3.0 cm) in the sagittal section of the left side of the head to neck, its section showed solid, gray and tender. The pathological examination revealed the multiple embryotic layers tissue such as cartilage, muscle, epithelium and primitive neural tube. The immature teratoma was considered. **Conclusion** Fetal intracranial teratoma is rare and has a high mortality rate, and the pregnancy termination is the main treatment means.

[Key words] teratoma; intracranial; fetus; treatment; prognosis

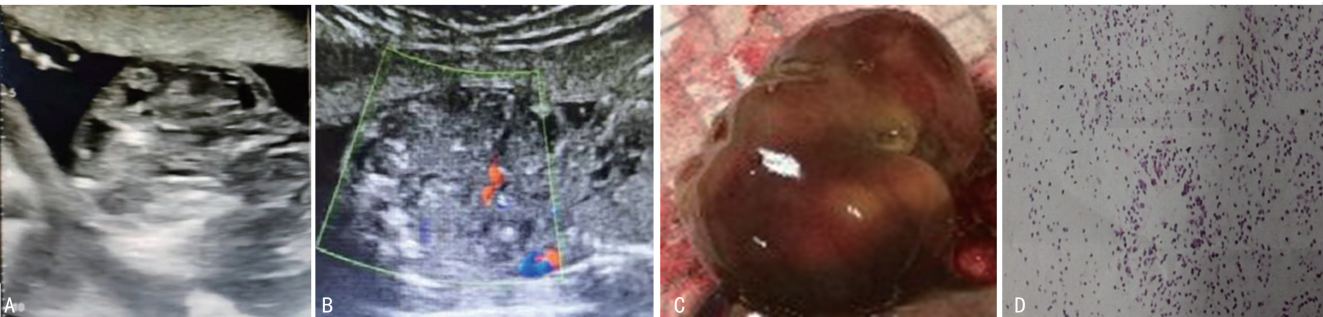
胎儿颅内畸胎瘤占胎儿颅内肿瘤的 1/3~1/2,病死率高。自 1864 年 ISACS 首次报道后,至今约有数

^{*} 基金项目:重庆市区域医学重点学科妇产科学(ZDXK201803)。 作者简介:廖雪(1986—),主治医师,硕士,主要从事妇产科肿瘤的诊治研究。 [△] 通信作者, E-mail: qianchuanren@yeah.net。

十篇关于胎儿颅内畸胎瘤的个案报道^[1]。本文报道产前检查发现胎儿颅内畸胎瘤 1 例,并对既往文献进行复习,探讨胎儿颅内畸胎瘤的临床表现、影像学及病理组织学特征,以及鉴别诊断和治疗,以提高对本病在宫内的认识和临床处理,减少异常新生儿出生。

1 临床资料

孕妇 22 岁, G₁ P₀, 孕期规范产检, 孕 12 周于重庆市江津区中心医院行颈项透明层 (NT) 检测显示为 1.2 mm, 唐氏筛查低风险。患者 2017 年 4 月 10 日 (孕 18 周) 于重庆市江津区中心医院常规产检, B 超提示“胚胎颈部包块”, 考虑“胎儿颅内畸胎瘤, 恶性可能性大”。患者 4 月 11 日于重庆市妇幼保健院进一步检查并确诊, 并于 4 月 12 日入住重庆市江津区中心医院要求终止妊娠。患者否认近亲结婚, 否认家族遗传病史。患者入院后, 签署知情同意书。



A: B 超显示胎儿颅内不均匀囊实性混合回声; B: B 超显示丰富血流信号及搏动性血流频谱; C: 胎儿娩出后头颈部包块; D: 病理检查显示原始神经管组织 (苏木精-伊红, ×200)。

图 1 胎儿影像学检查及病理检查

3 讨论

3.1 胎儿颅内肿瘤临床特征

胎儿颅内肿瘤罕见, 占儿童肿瘤的 0.5% ~ 1.9%; 但胎儿颅内畸胎瘤为胎儿颅内肿瘤的最常见类型, 占胎儿颅内肿瘤的 1/3 ~ 1/2, 其次是星形细胞瘤、脂肪瘤、脉络膜丛乳头状瘤、颅咽管瘤和原始神经上皮瘤^[2]。胎儿颅内畸胎瘤在妊娠前 3 个月发现非常罕见, 因此, 早期诊断困难。病因不清, 目前认为是妊娠 3 ~ 5 周时生殖细胞异常分化引起, 异位的全能细胞可以进一步分化, 也可以发生恶变。大多数畸胎瘤是中线肿瘤, 主要位于松果体、上蝶鞍区、四叠体、第三脑室、小脑引部, 其他非中线结构区主要包括基底神经节、小脑桥脑角、海绵窦区^[3]。由于其体积较大, 破坏正常脑组织结构, 故通常无法明确其起源^[3]。根据肿瘤组织大小, 一般将胎儿颅内畸胎瘤分为 4 种类型^[4]: I 型, 颅内组织几乎完全被肿瘤组织代替; II 型, 局限性小病灶, 压迫形成脑积水; III 型, 病灶突破颅底, 侵犯至眼眶或颈部; IV 型, 产后尸检偶然发现。本例根据超声表现及引产后大体所见, 应属于 III 型。胎儿颅内畸胎瘤可压迫脑干, 影响胎儿吞咽功能, 导致羊水过多^[5]。此外, 还与胎儿脑积水、大眼畸形、前

2 结果

患者 B 超检查结果提示, 胎儿颅内偏左侧至颈部可见大小约 4.6 cm × 4.1 cm 囊实性混合回声, 内部回声不均匀, 可见大小不等片状无回声区及较多点状强回声; 彩色多普勒血流成像 (CDFI) 显示, 实性, 部分可见丰富的血流信号, 并可探及搏动性血流频谱, 考虑畸胎瘤恶性可能性大 (图 1A、B)。于 2017 年 4 月 12 日行依沙吖啶 100 mg 羊膜腔内注射引产, 2017 年 4 月 15 日经阴道娩出 1 男性死胎, 重 550 g, 外观见左侧头颈部一包块, 向外突出, 余未见明显畸形。死胎巨检: 左侧头颅至颈部矢状切面一肿物, 大小约 4.5 cm × 4.0 cm × 3.0 cm, 切面实性, 灰白, 稚嫩。病理检查显示, 软骨、肌肉、上皮和原始神经管等多胚层组织, 考虑未成熟畸胎瘤, 见图 1C、D。

凶膨出、肺发育不全及高输出性心力衰竭有关^[5]。

3.2 胎儿颅内肿瘤影像学特征

以往先天性颅内畸胎瘤主要依靠尸体解剖诊断。近年来, 随着 B 超和磁共振成像 (MRI) 的广泛应用, 胎儿颅内畸胎瘤多数能够在产前发现。产前 B 超因其广泛性及价格适中, 通常作为诊断胎儿颅内畸胎瘤的首选方法。妊娠中晚期超声征象主要表现为囊实性或实性包块, 有时可见丰富血供; 并可因为肿瘤生长、压迫, 引起脑中线偏移、脑室受压、脑室扩张甚至脑积水、颜面部畸形^[6-7]。本例产前超声主要表现为囊实性混合性包块, 并可见较多点状强回声, CDFI 提示血流信号丰富, 故考虑畸胎瘤恶性可能性大。胎儿颅内畸胎瘤可伴随其他畸形, 如眼距过宽、下颌畸形、马蹄肾、心脏畸形、肺部畸形等, 因此, 超声检查时需同时注意其他脏器的发育。

孕 16 ~ 20 周, 脑基本结构已形成, 若超声检查诊断困难, MRI 可作为超声检查的重要补充, 应用于胎儿颅内肿瘤的诊断。MILANI 等^[8]发现, MRI 对组织密度显示更佳, 显像不受颅骨光环的影响, 能很好地显示肿瘤和周围脑组织的关系, 对确定组织结构及肿瘤的确切部位有较大帮助。XIA 等^[9]研究发现, MRI

能够发现更细小的病变,如局灶性出血和脑室周围结节,还可以发现 B 超漏掉的胎儿颅内占位。同时,MRI 可以精确描述肿瘤的范围,清晰展示周围的解剖结构。MRI 在 22 周之前即可鉴别畸胎瘤和错构瘤,22~32 周可鉴别生殖细胞肿瘤,32 周后可诊断星形细胞瘤及神经胶质细胞瘤^[10]。但在畸胎瘤的病例中,其软组织的分辨率仍有一些局限性,且不能排除对比剂是否对胎儿造成潜在损害。

3.3 胎儿颅内肿瘤病理学特点

病理检查是确诊胎儿颅内畸胎瘤的唯一方法。世界卫生组织(WHO)根据组织分化程度将胎儿颅内畸胎瘤分为 3 种:成熟性畸胎瘤,未成熟性畸胎瘤,恶性畸胎瘤。未成熟畸胎瘤通常含有未分化胎儿组织且可向恶性转化。未成熟畸胎瘤的神经上皮组织在 HE 染色后呈短梭形或卵圆形,围成神经管样或菊形,具有弥漫成片的原始神经上皮细胞,可伴有未成熟的其他上皮成分。本例患者病理检查结果见软骨、肌肉、上皮和原始神经管等多胚层组织,故考虑未成熟畸胎瘤。但仍需与胚胎性癌及多胚瘤相鉴别^[11]。

3.4 胎儿颅内肿瘤鉴别诊断

胎儿颅内畸胎瘤需与硬膜下血肿鉴别。硬膜下血肿通常位于幕上区域,与母体抗凝治疗、腹部创伤或胎儿凝血障碍有关。还需与脉络丛乳头状瘤鉴别。脉络丛乳头状瘤为实性肿瘤,常导致大量脑积水,超声表现为扩大的侧脑室内 1 个高回声团块^[5]。此外,还需与颅咽管瘤、原始神经外胚层瘤、脑膜瘤、室管膜瘤等病变鉴别^[5]。

3.5 胎儿颅内肿瘤治疗与预后

与成人畸胎瘤不同,胎儿未成熟畸胎瘤比例高。由于生长迅速,破坏和压迫周围正常脑组织,故病死率极高。ISAACS^[4]对 90 例确诊为胎儿颅内畸胎瘤患者进行跟踪随访,发现约一半胎儿在孕 30 周之前已经死亡,约 42% 出生后 1 周内死亡,其总体生存率约 7.8%。有研究对 49 例确诊为胎儿颅内畸胎瘤患者进行跟踪随访,发现无论何种途径分娩,均于新生儿期死亡^[5]。肿瘤体积越大、诊断孕周越早,预后越差。故国内产前发现的病例一般行治疗性引产,国外通常剖宫产结束分娩,但分娩过程中可能导致自发性颅骨破裂。目前国外已有成功手术切除婴儿颅内未成熟畸胎瘤的报道^[12],但仍缺乏大样本量研究及随访,宫内治疗仍在探索阶段^[13]。辅助治疗目前争议较大。化疗可延缓肿瘤的生长,并避免放疗,但其可对大脑的正常发育产生严重影响^[14]。

一般认为,肿瘤的大小、部位及病理性质是影响其预后的重要因素。但研究发现,孕龄、血红蛋白水平、血小板计数、甲胎蛋白水平与未成熟畸胎瘤发生发展相关^[3],考虑未成熟畸胎瘤预后可能与胎儿自身机体条件有关。NARIAI 等^[15]发现,高 MIB1/ki-67 增殖指数增高,可作为颅内未成熟畸胎瘤一个独立的

预后不良因素。与胎儿骶尾部畸胎瘤好发于女童不同,胎儿颅内畸胎瘤男女发病率无明显差异^[5]。目前尚未发现家族性病例报道。

因此,对产前发现的病例,建议在详细检查评估后,向患者提供详细的咨询,结合诊断孕周、病情及患者意愿,做出个体化的选择和处理。

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(收稿日期: 2020-06-01 修回日期: 2021-03-31)

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(收稿日期: 2020-05-28 修回日期: 2021-01-12)