·经验交流·

20 例小儿骶尾部畸胎瘤诊断分析

彭 斌 顾志成 吴 缤

【关键词】 畸胎瘤; 脊椎肿瘤; 骶尾部

畸胎瘤属胚胎性肿瘤，几乎可发生在身体的任何部位，骶尾部是性腺外畸胎瘤最常见的发生部位。骶尾部畸胎瘤是婴幼儿和儿童时期常见的骶尾部肿瘤，本院 2001 年 5 月至 2006 年 5 月收治小儿骶尾部畸胎瘤 20 例，其中 13 例为良性，3 例为混合性，3 例为恶性，现就其诊断经验分析如下。

临床资料

一、一般资料

本组 20 例，男 6 例，女 14 例。新生儿 3 例，年龄 2～4 个月 7 例，5～8 个月 6 例，9～21 个月 4 例，平均月龄 5.1 个月，最大月龄 21 个月。均以骶尾部、盆腹腔囊性及混合性包块和大小便困难就诊，其中 5 例伴尿潴留，3 例伴大便潴留，并出现低位肠梗阻，1 例大便条扁而细。分型：显性型 12 例，隐匿型 3 例，混合型 5 例。

二、辅助检查

1. 肛门直肠指诊：术前均行肛门直肠指诊，其中 12 例显型者在直肠后、骶骨前不能触及明显包块，5 例混合型及 3 例隐匿型者均于直肠后或直肠侧后壁、骶骨前扪及囊实性肿物，直肠粘膜光滑，肿物与尾骨相连，或包绕骶尾骨，5 例伴有尿便潴留者，食指通过困难，直肠受压前移，肛门外观也见肛门前移。

2. 腹部 CT 检查：均行腹部 CT 检查，14 例畸胎瘤为良性，表现为压迫盆腔周围的器官和组织，以囊性为主，密度接近水或稍高于水，实质成分较少，小于 50%，15 例有钙化表现；2 例畸胎瘤为恶性，表现为肿块全部及大部分位于盆腔内，肿块以实性结构为主，压迫盆腔脏器，其中 1 例 CT 检查显示有骶骨破坏，增强扫描实性部分明显强化，实性成分增多，大于 50%，侵犯周围器官和组织，结构与界限不清；4 例高度怀疑为恶性，CT 表现为肿块全部及大部分位于盆腔内，肿块实质部分约 50%，压迫盆腔脏器。

3. 血 AFP 检查：均行血 AFP 检查，平均为 1 500ug / ml，12 例小于 250 ug / ml，8 例大于 3000 ug / ml，8 例中有 5 例月龄小于 8 月，3 例大于 8 个月。

三、结果

20 例均行肿块切除术。均行病理学检查，其中 14 例诊断为良性肿瘤，包括纯卵黄囊瘤 10 例，有畸胎瘤各种成分如骨质，牙齿等 7 例；3 例为恶性肿瘤，系畸胎瘤恶变；3 例为混合性畸胎瘤。20 例均无远处转移。

术后均获随访，14 例良性肿瘤患儿均存活；3 例混合性骶尾部畸胎瘤中，2 例生长发育正常，1 例肿瘤复发行再次手术，术后病理检查证实为恶性肿瘤，3 个月后死亡；3 例恶性畸胎瘤术后 15～24 个月内死亡。

讨 论

各型骶尾部畸胎瘤均有恶变的可能。发生于骶前的隐匿型畸胎瘤，因肿瘤位置隐匿，早期常难以发现，多数到出现压迫症状，如大小便困难时才被发现，此时常常已经发生恶变。本组 3 例隐匿型畸胎瘤年龄均大于 8 个月，术后病理诊断均为恶性畸胎瘤，患儿均以排尿、排便困难就诊。因此，临床上如发现小儿大便形状改变或排便不畅，应尽早作肛门指诊，以便早期明确诊断，早期手术治疗。目前认为隐匿型中恶性肿瘤居多，肛门直肠指诊对骶尾部畸胎瘤的早期诊断有重要意义。

对于怀疑骶尾部畸胎瘤的患儿，血清 AFP 和腹部 CT 有利于诊断骶尾部畸胎瘤及其良、恶性。CT 能确定病灶的位置和形态特点，较好地显示骶尾部畸胎瘤的成分和范围，以及与临近组织、器官和骨骼

作者单位：苏州大学附属儿童医院普外科（江苏省，215003）

的关系，从而有助于鉴别肿瘤的良恶性[1]，有利于手术方案的确立。

典型畸胎瘤包含 3 个胚层组织，CT 表现为低等高混杂密度，有脂肪和水样的低密度及骨骼、牙齿、钙化高密度和软组织密度。畸胎瘤囊性部分 CT 检查时常表现为水样或稍高于水的密度，伴钙化灶和骨化影和(或)脂肪密度，畸胎瘤实性部分 CT 检查时常表现为从囊壁伸出的圆形包块穿过囊肿，或表现为囊壁节段性增厚，有时可见簇状、点状、葡萄状钙化，形态类似骨骼结构。恶性病变者可见肿块全部及大部分位于盆腔内，肿块以实性结构为主，压迫盆腔脏器，部分病例 CT 显示有骶骨破坏，增强扫描实性部分明显强化。

本组 16 例术前均能明确诊断骶尾部畸胎瘤及其性质，术后病理诊断与术前 CT 诊断完全相符，有 4 例 CT 检查不能判断其良恶性，表现为肿块全部及大部分位于盆腔内，肿块的实性部分约占 50 %，压迫盆腔脏器，其中 1 例高度怀疑为恶性畸胎瘤，其术前血 AFP 检查结果大于 3 000 ug / mol，故诊断为恶性畸胎瘤，术后与病理诊断相符，3 例血 AFP 检查结果小于 250 ug / ml 者，术后病理检查证实为混合性畸胎瘤。

对影像学检查高度怀疑恶性畸胎瘤者，血清甲胎蛋白(AFP)检查可作鉴别。一般情况下，AFP 测定值超过 250 μg / ml，应视为恶性[2]。恶性骶尾部畸胎瘤属于内胚窦癌(卵黄囊瘤)和胚胎癌，肿瘤组织中有这两种成份之一者，血清 AFP 可能升高，而良性畸胎瘤没有此类组织。因此，血 AFP 通常用来区别畸胎瘤的性质。新生儿存在生理性 AFP 增高期，由胎肝产生的 AFP 至小儿 8 月龄时才逐渐恢复到正常成人水平，所以在监测新生儿血 AFP 时，AFP 升高并不能提示是恶性骶尾部畸胎瘤。本组病例中，20 例均行术前血 AFP 的监测，其中有 8 例 (40 %)升高，均大于 3 000 ng / mol，其中 3 例大于 8 月龄的患儿诊断为恶性畸胎瘤，CT 检查高度怀疑恶性肿瘤，血 AFP 3 100 ng / mol。近年来，有学者认为结合组织 AFP 检测能更准确鉴别畸胎瘤的良恶性[3]，但程序较复杂。

肛门指检、腹部 CT 及血 AFP 检查有助于术前诊断骶尾部畸胎瘤及其良恶性。

参 考 文 献

1 赵静. 小儿骶尾部畸胎瘤的 CT 诊断[J]. 河南外科学杂志, 2005, 11(6): 66-67.

2 张金哲, 杨启政, 主编. 实用小儿肿瘤学[M]. 郑州: 河南医科大学出版社, 2001, 301.

3 熊忠讯, 刘文英, 王永刚. 小儿骶尾部畸胎瘤上皮细胞 AFP 免疫组织化学分析 [J]. 中华小儿外科学杂志, 2006, 27(10): 559-560.

·消息·

国家级继续教育项目《小儿骨科新进展学习班》的通知

宁波市第六医院拟于 2008 年 6 月 21-25 日举办国家级继续教育项目《小儿骨科新进展学习班》[项目编号：2008-04-07-066(国)]，届时将有著名小儿骨科专家吉士俊，杨建平，张建立，徐荣明，陈秋，仲肇平，马维虎，狄正林等教授授课，并有手术现场演示。

本次授课内容主要包括：小儿创伤的治疗新进展，骨折的微创治疗及并发症的处理，儿童髋关节疾病及相关问题的处理，脊柱侧弯的治疗等。学习班以骨科医生，小儿外科医生为主要对象，鼓励学员携带疑难病例资料进行交流，计划招收学员 40 名，按照报名顺序录取，额满为止。学习班结束后，授予国家 I 类学分 8 分。会务费 600 元(含资料费)，住宿费用自理。同时，本院常年招收进修医生。

联系地址：宁波市第六医院科教科(宁波市中山东路 1059 号)

联系人：姚陆丰 陈秋 谢辉

电话：0574-87801999 转 1327 或 1322, 13116666538, 13355989376

20例小儿骶尾部畸胎瘤诊断分析

作者： 彭斌， 顾志成， 吴缤
作者单位： 苏州大学附属儿童医院普外科,江苏省,215003
刊名： 临床小儿外科杂志 ISTIC
英文刊名： JOURNAL OF CLINICAL PEDIATRIC SURGERY
年，卷(期)： 2008，7(2)
被引用次数： 1次

参考文献(3条)

1. 熊忠讯;刘文英;王永刚 小儿骶尾部畸胎瘤上皮细胞AFP免疫组织化学分析[期刊论文]-中华小儿外科杂志 2006(10)

2. 张金哲;杨启政 实用小儿肿瘤学 2001

3. 赵静 小儿骶尾部畸胎瘤的CT诊断[期刊论文]-河南外科学杂志 2005(06)

相似文献(10条)

1. 期刊论文 史衍辉.张永久.夏璐.闫兵.贺梁 成人骶尾部畸胎瘤31例手术分析 -中国医师杂志2006,8(9)
目的 探讨成人骶尾部畸胎瘤的手术入路及术中注意事项.方法 1990～2004年共实施经会阴部骶尾部或腹骶联合切除成人骶尾部畸胎瘤31例,其中经会阴部、骶尾部入路切除14例,腹骶联合入路切除骶尾部畸胎瘤17例.结果 手术均获得成功,术后随访29例,1～15年,除4例因恶性畸胎瘤出现腹膜后及肺转移,3年内死亡,其余均恢复良好,无复发.结论 两种手术入路均安全可行,具体手术入路选择及术中注意事项根据肿瘤位置及毗邻脏器、骨性关系决定,术前增强CT是决定手术入路的关键检查,最终诊断主要依靠病理检查.

2. 期刊论文 罗亨卿.尹玉春.郑科炎.李颀 小儿复发性骶尾部畸胎瘤临床研究 -临床小儿外科杂志2002,1(3)
目的探讨骶尾部畸胎瘤(SCT)复发原因及降低SCT复发率的合理治疗方案.方法回顾性分析12例复发性骶尾部畸胎瘤(RSCT)疗效.结果 12例RSCT,其中良性7例,恶性5例,施行骶尾路手术切除9例,腹骶尾联合切除3例.5例行化疗.随访1～20年,存活9例,恶性SCT复发转移于术后10月内死亡3例.结论良性SCT复发主要原因是肿瘤和尾骨残留.恶性复发为瘤组织局部侵蚀,以及淋巴、血道转移.化疗可降低复发和死亡率.

3. 期刊论文 张壮岱.张卫平.祝玉芬.刘长安.钱宇航.ZHANG Zhuang-dai.ZHANG Wei-ping.ZHU Yu-fen.LIU Chang-an.QIAN Yu-hang MRI对椎管内肿瘤的诊断价值 -临床误诊误治2007,20(7)
目的:评价MRI检查对椎管内肿瘤的诊断价值.方法:对1999年1月～2004年11月收治的34例经手术及病理证实的椎管内肿瘤MRI影像特征进行回顾性分析.结果:34例中术前MRI定位诊断准确率97.1%,定性诊断准确率70.6%,提示发病部位、信号强度及强化特征是MRI诊断椎管内肿瘤最重要的依据.结论:MRI是当前诊断椎管内肿瘤的首选方法,具有较高的定位和定性诊断率.

4. 期刊论文 邱陆军.雷春.余继海.朱志强.王成.滕安宝.QIU Lujun.LEI Chun.YU Jihai.ZHU Zhiqiang.WANG Cheng.TENG Anbao 原发性骶前肿瘤26例临床诊断与治疗 -中国临床保健杂志2006,9(4)
目的 探讨原发性骶前肿瘤的诊断与手术治疗.方法 分析1993年4月至2005年10月我院收治26例原发性骶前肿瘤的诊断和治疗情况,结合文献进行讨论.结果 术前诊断主要依靠直肠指诊、B超、CT等相关检查.手术方法有:经骶尾部切除12例,经腹切除8例,经腹骶尾部联合入路切除6例.其中合并切除直肠2例,肿瘤完整切除20例,部分切除5例未切除1例.并发症有出血3例、直肠损伤2例、术后骶前感染2例、脓肿形成1例. 结论 对于原发性骶前肿瘤均应手术完整切除肿瘤,合理选择手术径路是切除肿瘤的关键.

5. 会议论文 吴启秋.关骅.童奔 液氮冷冻在脊椎肿瘤手术中的应用初步报告

6. 外文期刊 Kay.S.Khalife.S.Laberge.JM.Shaw.K.Morin.L.Flageole.H Prenatal percutaneous needle drainage of cystic sacrococcygeal teratomas.
Prenatal ultrasound (US) permits in utero diagnosis of sacrococcygeal teratoma (SCT), follow-up of tumor size, and the early identification of complications, allowing for a more timely and appropriate delivery. The recommended management of large SCTs is delivery by cesarean section (CS) to prevent dystocia, tumor rupture, hemorrhage, and death. However, even delivery by CS can be difficult, necessitating a large hysterotomy that adds to maternal morbidity. The authors report two cases of cystic SCTs in which prenatal percutaneous drainage allowed for an uncomplicated vaginal delivery. In the first case, a large unilocular cystic SCT was diagnosed at 31 weeks' gestation on prenatal US. The fetal presentation was breech, and the mass was steadily increasing in size, preventing spontaneous version. At 37 5/7 weeks, the cyst was percutaneously drained under US guidance allowing for successful external version. Repeat drainage just before induction of labor permitted a successful vaginal delivery. In the second case, the cystic SCT was percutaneously drained just before induction of labor at full term, again allowing for an uncomplicated vaginal delivery. Prenatal percutaneous needle drainage of cystic SCTs offers an alternative to CS that results in decreased risks for both mother and fetus.

7. 外文期刊 Derikx.JP.De-Backer.A.van-de-Schoot.L.Aronson.DC.de-Langen.ZJ.van-den-Hoonaard.TL.Bax.NM.van-der-Staak.F.van-Heurn.LW Factors associated with recurrence and metastasis in sacrococcygeal teratoma.
BACKGROUND: Sacrococcygeal teratoma (SCT) is a relatively uncommon tumour, with a high risk of recurrence and metastasis. The factors associated with recurrence and metastatic disease were studied. METHODS: A retrospective review was conducted of 173 children with SCT treated between January 1970 and February 2003 at the paediatric surgical centres in the Netherlands. Risk factors were identified by univariate and multivariate analysis. RESULTS: Eight children died shortly after birth or around the time of operation. Nine children, all over 18 months old, had metastases at presentation. Four teratomas with metastasis showed mature histology of the

primary tumour. Nineteen children had recurrence of SCT a median interval of 10 months (range 32 days to 35 months) after primary surgery. Risk factors for recurrence were pathologically confirmed incomplete resection (odds ratio (OR) 6.54 (95 per cent confidence interval (c.i.) 2.11 to 20.31)), immature histology (OR 5.74 (95 per cent c.i. 1.49 to 22.05)) and malignant histology (OR 12.83 (95 per cent c.i. 3.27 to 50.43)). Size, Altman classification, age and decade of diagnosis were not risk factors for recurrence. One-third of the recurrences showed a shift towards histological immaturity or malignancy, compared with the primary tumour. Seven patients died after recurrence, five with malignant disease. CONCLUSION: This national study showed that SCT recurred in 11 per cent of the children within 3 years of operation. Risk factors were immature and malignant histology, or incomplete resection. Mature teratoma has the biological capability to become malignant.

8.外文期刊 Moeller.KK.Coventry.S.Jernigan.S.Moriarty.TM Atypical teratoid/rhabdoid tumor of the spine.

SUMMARY: Atypical teratoid/rhabdoid tumor (AT/RT) is a highly malignant central nervous system neoplasm usually seen in young children and infants. Prognosis for AT/RT is poor, with most patients dying within 1 year of presentation. AT/RT most commonly occurs intracranially. Location in the spine, though previously reported, is rare, and imaging findings have not been emphasized in the past. We present a case of AT/RT occurring in the thoracolumbar spine of a child and review available clinical and imaging findings in previously reported cases of spinal AT/RT.

9.外文期刊 Kamata.S.Imura.K.Kubota.A.Sawai.T.Nose.K.Hasegawa.T.Kusafuka.T.Ohue.T.Yagi.M.Okada.A Operative management for sacrococcygeal teratoma diagnosed in utero.

BACKGROUND/PURPOSE: Sacrococcygeal teratomas (SCT) diagnosed in utero have been reported to be large and associated with high perinatal mortality rate. However, operative management including timing of operation after birth, combined abdominal approach for devascularization, and the position of the patients during resection is not well established. METHODS: A retrospective review of 14 patients with SCT between 1978 and 1999 was performed. To prevent massive bleeding during surgery, the authors used an abdominoperineal resection in the supine position after devascularization. The patients' clinical and sonographic characteristics, prenatal outcome, operative management, and postnatal outcomes were examined. RESULTS: One fetus died in utero. Two patients died within a week, but no late death and no malignant degeneration were noted. A staged operation with devascularization was performed in 2 patients, and 1 death occurred. Surgical management was analyzed between survivors without massive bleeding at surgery (n = 9) and others (n = 4). A significant difference was observed in the subgroup of tumor resection with devascularization or supine position and that of early resection with devascularization or supine position. CONCLUSIONS: Early resection using the abdominoperineal approach supported by close antenatal sonography may be preferable for a favorable outcome. Resection in the supine position after devascularization may have advantages of respiratory management, cardiac resuscitation, and bleeding prevention. J Pediatr Surg 36:545-548. Copyright 2001 by W.B. Saunders Company.

10.外文期刊 Chisholm.CA.Heider.AL.Kuller.JA.von.Allmen-D.McMahon.MJ.Chescheir.NC Prenatal diagnosis and perinatal management of fetal sacrococcygeal teratoma.

Sacrococcygeal teratoma is the most common fetal neoplasm, with an incidence of 1 in 40,000 births. Fetuses with this malformation are at risk for significant perinatal morbidity and mortality. We identified nine fetuses with sacrococcygeal teratomas that were diagnosed antenatally and managed at the University of North Carolina Hospitals over a 7-year period. We retrospectively reviewed the charts of mothers and infants and recorded data concerning perinatal and surgical management. Six infants survived the neonatal period. All infants diagnosed after 20 weeks' gestation survived. Fetal hydrops developed in three fetuses, all of whom died. Inadequate ventilation secondary to prematurity was a contributing factor in each lethal case. Diagnosis at an early gestational age, development of fetal hydrops, and premature delivery predicted a poor prognosis. When possible, we recommend that delivery be delayed to allow for fetal development. Stabilization of the infant should be attempted before resection of the teratoma.

引证文献(1条)

1.贺家勇.王国辉 成人骶尾部畸胎瘤1例报告[期刊论文]-新疆医科大学学报 2010(2)