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个案与短篇

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双头连体婴儿脑电活动1例报告

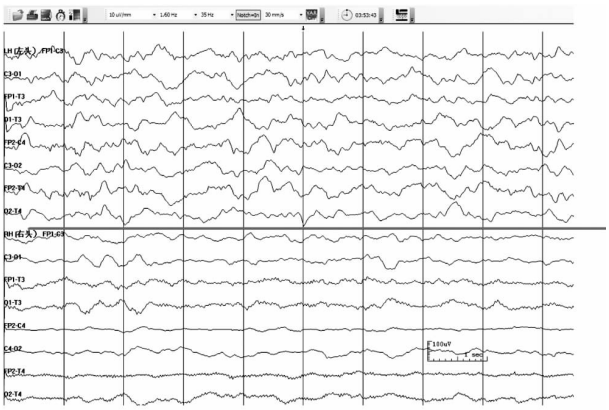
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[**关键词**] 双头畸形;连体双头畸形;EEG;懒波
[**中图法分类号**] R741.044 [**文献标志码**] B

1 临床资料

孕39周妇女,系第1胎第1产,于2011年5月5日在外院剖宫产娩出一体双头女活婴,4.05 kg,遂于5月9日入住我院儿科,置于保温箱中,持续头罩吸氧下双头反应可,哭声较弱。刺激左侧肢体触觉、痛觉反应正常,左侧头颅面部表情改变;刺激右侧肢体触觉、痛觉反应正常(较左侧反应迟钝),右侧头颅面部表情改变。吸吮反射左头较右头好,觅食反射可正常引出,持握、拥抱反射未引出。CT三维成像见2头,2套脊柱,1对半肋骨,1对半锁骨,胸骨、肩胛骨、骨盆及四肢均1套。全脑(2个)实质密度减低,脑沟变浅,脑室显示不清,中线结构因体位受限有所偏移,颅骨缝未闭。临床诊断:双头单体女婴、复杂性先天性心脏病、两肺发育不全伴肺不张、新生儿缺血缺氧性脑病、病理性黄胆。

为了解患儿脑功能发育情况及与肢体的关系,我中心于其3个月时进行了脑电图(electroencephalogram,EEG)监测。使用美国Biolog动态脑电图监测系统,用1个动态盒子同时记录2个头颅,每头记录8导,共16导。记录电极均为FP1、C3、O1、T3,FP2、C4、O2、T4,参考电极为REF。采样参数分别为高频70 Hz、低频0.5 Hz、灵敏度为10 μV/mm,至少记录24 h,在患儿熟睡期采用棉签分别刺激双侧肢体,观察脑电活动的变化。结果:同正常3个月大婴儿比较,此婴儿双侧头脑电不一致,左头基本正常,右头懒波表现(弥漫性δ活动改变,波幅低平,图1)。在熟睡期刺激左侧肢体时,左头面部痛苦表情,左头脑电活动由睡眠期纺锤节律转为清醒期波形,右头无变化。待再次入睡刺激右侧肢体,右头动,右头电活动变化,少量的睡眠生理波消失转为清醒期低平活动,右头无变化。



两头颅同步记录横线以上(前1~8导)左头波形及波幅正常,横线以下(后9~16导)右头波形为低平懒波

图1 双头连体婴儿脑电图表现

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展中是起主要作用,还是辅助作用,或者是与其他因素协同作用,或者只是其他主要因素的标志,有待于进一步研究。

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2 讨论

国外文献报道,联体双胎畸形的患病率为1/50 000~1/200 000,多为死胎,男女比例为1∶3,联体多为单卵双生,受精卵分裂不完全形成的[1-2]。正常婴儿3月大EEG表现为3~4 Hz,50~100 μV的欠稳定的慢活动背景,婴儿期大半在睡眠中度过,3个月大时睡眠中应出现睡眠纺锤节律,频率12~15 Hz,多为13~14 Hz,波幅多为30~50 μV[3-4]。本例双头联体儿,左头脑电活动基本与月龄吻合,清醒及睡眠同正常儿脑电图,右头表现为低波幅懒波,呈现早产儿特征或发育延迟现象。懒波出现常提示脑功能低下,脑发育不成熟[5],或者脑干功能抑制、临近脑死亡者,若局灶性改变常与囊肿、脑软化灶及脑萎缩有关[6],此双头儿右头电活动微弱,可能与1套心、肺及复杂的先心病供血供氧不完全,畸形非优势脑发育延迟、功能低下等有关。临床亦提示右头面部表情呆滞,精神萎靡,反应迟钝。而左头面部表情活跃,反射正常。睡眠中刺激证实左头控制左侧肢体,而右头与右侧肢体有对应关系,但右侧刺激不及左侧灵敏。脑干及体感诱发电位也支持这一结果[7]。

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