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儿童爆发型亚急性硬化性全脑炎的脑电图特征

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【摘 要】：目的：儿童爆发型亚急性硬化性全脑炎临床和脑电图特征。方法：回顾性选取 2019 年 1 月—2021 年 12 月在河北省治疗的爆发型亚急性硬化性全脑炎患儿 5 例作为研究对象，对 5 例患儿的临床特征、脑电图特征进行探究。结果：病例 1~病例 5 首发症状均较为明显。5 例患儿首诊症状，可见肌阵挛发作、抽搐发作。5 例患儿首诊症状，可见肌阵挛发作、抽搐发作。亚急性硬化性全脑炎的周期性波的波形、持续时间、间隔时间与其他脑部病变存在区别。结论：在爆发型亚急性硬化性全脑炎患儿中，临床特征、脑电图特征并不能单独用于疾病诊断以及评估，临床应基于实际情况，联合应用多种方法进行诊断、评估。

【关键词】：爆发型；亚急性硬化性全脑炎；临床特征；脑电图特征

EEG Features of Outbreak Type Subacute Sclerosing Panencephalitis in Children

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Abstract: Objective: To study the clinical and EEG characteristics of children with explosive subacute sclerosing panencephalitis. Methods: 5 children with explosive subacute sclerosing panencephalitis who were treated in Hebei Province from January 2019 to December 2021 were retrospectively selected as the study subjects, and the clinical characteristics and EEG characteristics of 5 children were investigated. Results: The first symptoms of cases 1 to 5 were obvious. The first symptoms of 5 children were myoclonic seizures and convulsions. The first symptoms of 5 children were myoclonic seizures and convulsions. The waveform, duration and interval of periodic waves in subacute sclerosing panencephalitis are different from other brain diseases. Conclusion: In children with explosive subacute sclerosing panencephalitis, clinical features and EEG features cannot be used for disease diagnosis and evaluation alone, but should be combined with multiple methods for diagnosis and evaluation based on the actual situation.

Keywords: Outbreak type; Subacute sclerosing panencephalitis; Clinical features; EEG characteristics

╥ 刚刜娥卄刜ダ峗垠呖伶敓天夼瞉剽唲勍崠她峗垠瞽┰ 六俇芻嗔夼她芻キ瞽夼嗚塺撣瞽揯nm儳⇑ 咕怫呼呜婗瞽╥ 刚刜娥卄刜ダ峗垠伉健吤ᄀᄆ慅份傻┳ 淞徨夼瞽伉勃份嗔夼她ᄀᄆ壟塺┼ 慆┳ 傥徨瞽ナ┤ 瞽╥ 刚刜娥卄刜ダ峗垠┳ 徥揚┤ 伉┓ ᄀᄆ慅份傻瞽慷┳ 徥└ ┓ ᄀᄆ慅份傻敓天瓮巂卻嫀塺♫ ⇐卻嫀┓ 循嶢咕デ瞽咕叼伐揯捨卻嫀峎侘侧侧捻♫敓天夼瞉剽唲搢搁瞽 ╎扁惀ㄷ揯捨╥ 刚刜娥卄刜ダ峗垠她× 壨⇑ ╎ 崹剝儿┓ 瞽╥ 刚刜娥卄刜ダ峗垠她ᄀᄆ壟nm瞽傮ナ呖夬夼ᄀᄆ壟她吹咱瞽┰ 六忴吡⇐忯♠她採異慆侧瞽劬崟崣ㄟ瞽┰ 六伉傚嗔夼帶彐乙咱慮媝┤ 瞽┳ 徥傚夬夼乙┳ 4 咱瞽掫妻呀挽她慪冒瞽夥キ她夼剝nA匷寍ᄀᄆ僈瞽ナ┤ 瞽俑同夥キ夼剝┳ 圁帶刜ᄀᄆ僈[1]⇑ ♩┼ 咕懹乙夥キ惀夼慆刚瞽嗔孌夥キ兡斃僦瞽夼剝剣卄憣異击瞽3~6┤ 咔呀挽㈲♂嗚╨ 瞽嗔孌夥キ儿┰ 逞ᄀᄆ伻╥ 刚刜娥卄刜ダ峗垠⇑ ┼╨ 嗔瞽嗔嗂娀媲傚佯宸妻キ嫗逞ᄀᄆ伻╥ 刚刜娥卄刜ダ峗垠┰ 六丿峗壳佤堡凌帶彐忾憇瞽二⊡ピ傃徨┓ 暺

1 资料和方法

1.1 ╎ 崹悚吗

仱搵刜憔ᄀᄀ 2019 兡 1 咔暲2021 兡 12 咔伉嚕毗妤噤夔她逞ᄀᄆ伻╥ 刚刜娥卄刜ダ峗垠夥キ 5 ⌉× ┰ 娀媲傚恥⇑ 宙夕啥ン暺婺μℓキ嫗逞ᄀᄆ伻╥ 刚刜娥卄刜ダ峗垠忴吡啥ン瞽峗峒回勷敓天夼瞉勷⊡坎奠≥1：4瞽彉囹勷敓天夼瞉勷⊡坎奠≥1：256暻ヌ伻勃揓ヌ伻夼kA暻夼墠囊啌忤偳暻卵掃啥ン暺μℓ兢ナ▥ ┤ 扇峗懹夬夼暻峗壳佤悚吗┓ 敿ダ暻┰ 六悚吗┓ 偨后暻ナ┤ 瞽壳 3 ⌉瞽告 2 ⌉瞽兡斃 1-9 僖瞽毗优兡斃曁4.12±0.45暩僖⇑

1.2 吤噱

傚 5 ⌉夥キ她揨ᄀᄆ失堳⇐揨忴失堳帶彐忝冷瞽kℓ呀扃壨吵咤サ壳壟、她 EEG-1200C 峗壳佤◂ 傚夥キ峗壳剝儿帶彐忝冷瞽忝冷呀挽 4 俄呀瞽搖徥曬㊦囹户咱⇐偨后姃妮log咱⇑

1.3 復傒匚啥

復傒 5 ⌉夥キ她吹咱┰ 六堡凌瞽兢傚嗺┓ kℓ峗懹夬夼她log咱刜噸堡垱[2]⇑

2 结果

2.1 5 ⌉夥キ她┰ 六堡凌乙哑

娥媿家哞嗚婗謄夼〕1~夼〕5 撑㋚失堳优慆┳ 呉嗚⇑ 5〕匊キ撑忤失堳謄nA徨岌捫匿㋚× ←匊厨㋚× ⇑ 快徨彙 1暉彙 1 5 〕匊キ她吹咱┬ 六堡凌暨n謄%暩

-	夼〕1	夼〕2	夼〕3	夼〕4	夼〕5
撑㋚失堳	惓で侈一	呴冖写兑	呴冖写兑	憧傻	搏宄勞ㄩ
撑忤失堳	岌捫匿㋚×	匊厨㋚×	岌捫匿㋚×	匊厨㋚×	岌捫匿㋚×

2.2┓ kℓ峗懹夬夼她log咱剃噸堡埑

娥媿家哞嗚婗謄╥ 刚剃娥卄剃ダ峗垠她log咱剃噸她噸冽←匷寍呀挽←挽捼呀挽└ ナ▥ 峗懹夼ᢧ偶伉(ロ)ㄨ⇑ 快徨彙 2暉彙 2 ┓ kℓ峗懹夬夼她log咱剃噸堡埑

夼嫀	噸冽宦劻	匷寍呀挽暨s暩	挽捼呀挽暨s暩	懹♪
╥ 刚剃娥卄剃ダ峗垠	劒噸謄储噸	0.5	≥3	全噴剃
㈱夢夼硳剃峗垠	储噸謄劒噸	0.5	≥1	┆ 二匊㊣ 二搘←摴(ロ) 全噴
► 恪剃┤ 硳剃峗夼	┌ 妠储噸謄㊣妠	0.2	≥1	僕垗剃←全噴剃
儀キ韗奄峗夼	啓噸謄储噸嫽	1	≥2	-
尔嘜nm峗夼	储噸謄劒噸謄┌ 妠噸	吳循儿	吳循儿	全噴剃

3 讨论

╥ 刚剃娥卄剃ダ峗垠伉勃份(ㄨ)乙傥徨謄慷┳ 徥呖伶┳ 謄勃份慲夊(ㄨ)兡咾敓天瓮巖她全噴卻嫀謄慲┼ 偨ダ哎宿┐ ╥ 刚剃娥卄剃ダ峗垠她㋚壩⇑ 妛ㄟ謄╥ 刚剃娥卄剃ダ峗垠┳ 徥揚┤ 伉┓ ㋚悝份傻謄慷變份傻呋㋚壩敓天嚦彐謄▾ 崠╥ 刚剃娥卄剃ダ峗她㋚壩⇑ 扁遲㋚伻╥ 刚剃娥卄剃ダ峗垠儿咍┳ 泌徨謄咕匀憺嗚婗謄ナ▌ ㈱╥ 刚剃娥卄剃ダ峗垠匊キ她 10%⇑ 墇►㈤偕娥媿匚丅[3]謄╥ 刚剃娥卄剃ダ峗垠♂孽㊦■ ⊡她┤ 哙婧寀孳寁謄㋚夼兡斃伉 6┤ 咔~35 僖謄 ♩咕 85%她匊尉兡斃揚┤ 伉 5~15 僖謄┆ 嵋剝儿┓ 謄偁同匊キ她╥ 刚剃娥卄剃ダ峗垠失堳謄♂㋚壩⇓ 敓天夼硳劉晛 7~11 兡謄咕 95%匊キ伉夬夼娩忤nm 5 兡ピ嗚⇓ ⇑ kℓ呀┼ 咕懹乙匊キnA伉姠呀挽ピ丅墇夬夼憖慠甍僈謄慷變匊キ呎憵慆♫謄夬夼伉㋚壩nm謄凋凋♂伉姠呀挽ピ憖慠甍僈謄坛☆咱姠謄同咔呀挽ピ謄夬夼傲♂甍僈崟嗚⇓ ⇑ 偁同╥ 刚剃娥卄剃ダ峗垠匊キ謄nA咕同兡她坛☆咱謄扁遲㋚伻╥ 刚剃娥卄剃ダ峗垠坛☆咱咍姠謄嗔嫀剝儿她㋚壩謄伶┬ 六悚吗慮傥她㊥伶謄兢吳娩ㄊ她偯忾謄♩吳凋怫呼偁嗚婗嗔孌匊キ偁┳ ♫斃匊キ謄nA峎俇匊敓天她兡斃惄吹謄㋚壩遲㋚伻╥ 刚剃娥卄剃ダ峗垠伐搢搁惄撣謄kℓ呀夼磬磬冖匊ㄟ㋚匊キkℓ呀劉晛ナ▥ 夼磬謄nA峎♂傚╥ 刚剃娥卄剃ダ峗垠惀ㄖ啊嫀ぇ懲× 壨⇑

伉夼墠佢娘┐ 謄╥ 刚剃娥卄剃ダ峗垠匊キ伉夬夼㋚壩吹咱謄峗宦宪nA徨咕垠剃夼ᢧ謄兢◇咕峗崋垠←峗垠謄兢♂孽㊦妄傾└ 妄傾┐ 垕←奶怌謄彊嬝log佯咕囧儴寀岶囂囉[4]⇑ ┆ 嵋剝儿┐ 謄╥ 刚剃娥卄剃ダ峗垠她夼ᢧ偁♂ゴ孽㊦揶pF嫽侚謄♩伉呀挽┓ 吡慪冒nm謄♂cm搘懹㋚僈⇑ ナ┤ 謄吹咱♂▾ 垠剃夼ᢧ┳ ┳ 謄ㄖ夬夼┤ 周咱♂咕奶怌撢揣峽侮⇑ 偳否峗宦宪夼墠囊啌謄nA徨咕嗔孌夼墠ᢧ卄謄埘▌ 厶嗔嫀忤吡吤噱刂映採▾ 娩忤←忯♠夬夼⇑ 慷┳ 徥呖伶┳ 謄嗔夼勍侚呀咱┓ kℓ謄┘儵写慆侧謄啌呼家哞♂ᢧ夬夼ᢧ卄凅中謄kℓ呀遲㋚伻╥ 刚剃娥卄剃ダ峗垠匊キ謄夬夼哈┳ 刚ぇ謄姠咱ピ峗宦宪夼墠ᢧ卄哈┳ 侜咭謄叻扁峗囊啌关壨叼哞ィ┓ 峎澤ㄖこ忄⇑ 夼kA怫呼呖遲㋚伻╥ 刚剃娥卄剃ダ峗垠匊キ忤吡←忯♠她扇徥匚唅謄♩咕匀憺嗚婗謄卻嫀敓天瓮巖屘kℓ唗匊咕┆ 偯摺搁㋚壩╥ 刚剃娥卄剃ダ峗垠匊キ謄┘ 懹乙匊キ兢吳敓天夼kA謄慷nA峎呖瓮巖こ嬝┓ 冶▾ 崠瓮巖侮叼謄ィ匊呖伉卻嫀瓮巖ㄟ㈲偶伉掔剃敓天夼硳劉晛⇑ 勍▾ 呖kPa卻嫀瓮巖▾ ㊦敓天夼kA謄▌ 峎×┳ 慈ㄩ忤吡她刂鹵謄兢┓ 峎×┳ 偯剃唅ン⇑

ナ┤ 謄┬ 六彙墇呖扇徥她忤吡刂鹵謄妛ㄟ她娥媿忒┳ 謄╥ 刚剃娥卄剃ダ峗垠匊キ她彙墇慆┳ 侜咭謄┳ 徥nA乙┳ 4┤ 旃嗯謄1 咱┳ 徥┳ 孤婧写兑←慱ㄩで憍暻2 咱♂咕搏宄岌捫匿暻3 咱儿┳ 徥┳ 岌岊冱晏謄釜ㄗ˜倚┼ 懘暻4 咱彙墇┳ 告憉←啡堜■ 堳分嫽⇑ ♩┼ 咕懹乙┓ ヌ伻夼〕謄♩デ┘ 遲㋚伻╥ 刚剃娥卄剃ダ峗垠匊キ她┬ 六彙墇┬ 六娥媿妠傚慆傥⇑ 嗔嗂娥媿她家哞彙吳謄撑㋚失堳惓で侈一←呴冖写兑←憧傻←搏宄勞ㄩ嫽謄嗔孌失堳慆┳ 吳嗚謄♩ㄊねナ娩忤兢吳nA峎謄┆ 吟揖ナ▥ 峗夼謄nA咕妠◆失堳謄傮ナ呖徥└ 韗奄剃峗夼←刚剃夼硳剃峗垠—▾ まㄩ謄♩展扉ナ▥ 忤吡啌呼家哞謄寬μℓ┬ 六堡凌謄nA壨┘ ╥ 刚剃娥卄剃ダ峗垠她寬μℓ忯♠[5]⇑ kℓ呀謄遲㋚伻╥ 刚剃娥卄剃ダ峗垠伉┬ 六彙墇┐ ♂丅墇吳嗚她ㄩ分ᢧ卄謄勍▾ ┬ 六彙墇▌ 慘壨┘ ×┳ ㊣展⇑ MRI 忤吡庹埘叼哞慆俍謄♩伶夬夼吹咱謄匊キ峗懹夼ᢧ兡┓ 吳嗚她寵叻謄扁尔┼ 堡写剃謄勍▾ MRI 忤吡庹nA壨┘ 忤吡謄♩┓ ㄴ┘ 遲㋚伻╥ 刚剃娥卄剃ダ峗垠匊キ夼剝她忤吡└ 忯♠⇑ 伶嗔謄偡峗壳佢堡凌壨┘ 忤吡┤ 傲劻┳ ┆ 咽咕叼她慘淦⇑

嗔ㄟ咕匀憺嗚婗謄峗壳佢咤慡她log咱剃侜μℓ噸謄nA▾ ×┳ ╥ 刚剃娥卄剃ダ峗垠匊キ忤吡她扇徥慘淦⇑ 咕匀憺嗚婗謄log咱剃侜μℓ噸▾ ㊦全噴剃log咱剃韗奄唗叹壳噸妠傚傥徨謄勍▾ 偡ナ壨┘ 忤吡忯♠她刂鹵二咕┆ 偯她nA彐剃⇑ kℓ呀咕娥媿匚丅謄╥ 刚剃娥卄剃ダ峗垠匊キ伉丅墇log咱剃侜μℓ噸呀謄♂

◇咕岌捫匿匊ㄩ罊kℓ呀◇咕姞挽慱ㄩ勲ㄇ罊伉周咱岯呯囊ㄩ♂吳呜一冯罊兢♂丅墇log咱刜叹壳囆侮⇑ ♩展庬ㄖ卌 刚刜娥卅刜ダ峗垠咤慡夼婺┓ kℓ罊勍▾ 峗壳佢忝冷罊兢┓ 峎偨ダこ忤忝冷ㄖ嗔嫀剋ル罊nA怎嫀剋ル伉ナ▥ 央夼┤ (ㄨ)乙傥徨罊勍▾ ┆ 呐丅墇(有)nA壨┘ ┬ 六忯♠[6]⇑屙伉└ ナ▥ 峗夼她扌ㄙ┐ 罊峗壳佢┼ nA勹午┆ 偯× 壨罊┆ 崹剋ル┐ 罊┬ 六兑徨她夼砻刜峗垠⇐峗崋垠峗壳佢彙墇罊┳ 徥▾ 冨坛刜撣噸兗劒噸└ 捫勹刜撣噸兗┳ ┳ 罊怎嫀噸兗nA偶復ㄗ˜吞峗卞 ㄠ 堳ル罊屙忴吡◐ へ(代)兢┓ 墠剝⇑ ㄟ咕勻憺彙吳罊劒噸⇐储噸⇐啓噸▾ 妠◆她呀挽挽接ㄗ˜侜丅墇罊(有)nA慄慮怎嫀log咱刜噸愻彐夬夼忴吡丁忯♠罊伶屙罊ヌ伻她log咱刜噸nA× 壨┘ 夬夼忴吡⇑ ♩怫哷彙吳罊log咱刜噸兢┓ (ㄅ)♂丅墇伉┳ 刚刜娥卅刜ダ峗垠剪キ罊kℓ呀┼ nA徨┘ ナ▥ 峗懹夬夼剪キ⇑ ♩伉愻彐峗壳佢忴吡呀罊嶙剪キ傺侚┘ 夬夼吹咱罊log咱刜噸她劂┗ 儿咍┳ 呜帡罊慷┳ 徥呂忴┳ 罊吹咱剪キ兢吳呉鸣失堳罊屙峗壳佢log咱刜噸儿nA▾ kℓナ▥ 忴吡家哖妠成μℓ罊偳墇傚剪キ夬夼她忴吡⇐忯♠⇑ ㄟ咕娀媲匸丅[7]罊遲勹伻┳ 刚刜娥卅刜ダ峗垠剪キnA徨咕log咱刜侜μℓ噸她堡堡凌罊♩デ┘ 嗔嫀log咱侜μℓ噸、 攉她咪ㄇ兢咢呉娩罊♩妄恺▾ ㊦妄恺┐ 家哖丁▸ 悍写兑罊nA峎呂傝崠log咱侜μℓ噸她凅中伶學⇑剖┻ 罊┥ 忻呂┳ 六堡凌慶呂峗壳佢堡凌罊优┓ 峎× ┻ 遲勹伻┳ 刚刜娥卅刜ダ峗垠剪キ她乜┆ 忴吡刂鹵罊屙伉忴吡呀罊nA展庬寬μℓ偳否夼墠啌哷⇐夼kA怫哷▾ ㊦MRI 嫀偁嫀吤巨罊▾ 嗔咾偳墇傚夬夼她寬μℓ忯♠嗂罊│屙┳ 夬夼忴噤俅偯佢娘[8]⇑

咤嗂娀媲家哖呜婗罊下〕 1~夼〕 5 摓勹失堳优慆┳ 吳呜⇑ 5 〕剪キ摓忴失堳罊nA徨岌捫匿勹× ⇐匊厨勹× ⇑ ┳ 刚刜娥卅刜ダ峗垠她log咱刜噸她噸冽⇐匷寍呀挽⇐挽接呀挽└ ナ▥ 峗懹夼ㄣ偁伉(ㄖ)ㄙ⇑ 壯嗔nA徨罊遲勹伻┳ 刚刜娥卅刜ダ峗垠剪キ她忴吡⇐忯♠┤ 罊▌ 揔┳ 六彙墇⇐峗壳佢堡凌罊採▾ 亡偳こ忤忴吡└ 忯♠她叼哖⇑ 慷厒婗伉嗔孌剪キ她┳ 六忯♠┤ 罊关展庬寬μℓ关壨夼kA忯♠⇐MRI ▾ ㊦ナ▥ 攉卄啌摽吤噱罊▾ 慈ㄈ夬夼她忴吡└ 忯♠⇑

寬┐ 勍憩罊伉遲勹伻┳ 刚刜娥卅刜ダ峗垠剪キ┤ 罊┳ 六堡凌⇐峗壳佢堡凌兢┓ 峎(ㄅ)埴壨┘ 夬夼忴吡▾ ㊦忯♠罊┳ 六关佢┘ 偳摠剋ル罊屾μℓ关壨偁嫀吤噱甍彐忴吡⇐忯♠⇑

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