

垂体腺瘤假包膜囊外切除术的临床研究

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【摘要】 目的 探讨垂体腺瘤行假包膜囊外切除术的临床意义。方法 选取2015年4月~2016年7月行经蝶窦入路切除垂体腺瘤的173例患者,根据假包膜囊外及囊内切除进行分组,对比其全切率、生物学治愈率及并发症情况。**结果** 173例患者中,90例发现假包膜(52.0%),其中无功能型和生长激素型垂体腺瘤假包膜发现率较高。囊外切除组肿瘤全切率(95.6%)高于囊内切除组(88.0%),但差异无统计学意义;功能型腺瘤中囊外切除组生物学治愈率亦较高(89.7%比71.4%),差异有统计学意义($\chi^2=4.279$, $P<0.05$);术中脑脊液漏发生率分别为47.8%和41.0%,术后脑脊液漏发生率为0;术后病理学证实假包膜有肿瘤细胞浸润。**结论** 垂体腺瘤假包膜囊外切除能够提高肿瘤全切率及功能型垂体腺瘤的生物学治愈率,且不增加术后并发症,是一种安全、有效的切除方式。

【关键词】 垂体腺瘤; 假包膜; 囊外切除

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Pseudocapsule based extracapsular resection of pituitary adenoma ZHANG Ming-fu, LIU Ning, LI Ying, et al. Department of Neurosurgery, the First Affiliated Hospital, Harbin Medical University, Harbin 150001, China

【Abstract】 Objective To investigate the clinical significance of pseudocapsule based extracapsular resection of pituitary adenomas. **Methods** Totals of 173 patients who underwent tumor resection from April 2015 to July 2016 were selected. All patients were divided into two groups according to pseudocapsule based extracapsular or intracapsular resection. Total removal rate, biology cure rate and complications were evaluated. **Results** In the 173 patients, pseudocapsule was found in 90 patients (52.0%) and mostly was found in non-functional and growth hormone secreting pituitary adenoma. No significant differences were found in total removal rate between extracapsular resection group (95.6%) and intracapsular resection group (88.0%). In patients with functional pituitary adenoma, biology cure rate of patients in extracapsular resection group was significantly higher than those in intracapsular resection group (89.7% vs 71.4%, $\chi^2=4.279$, $P<0.05$). The incidence of cerebrospinal fluid leak during surgery was 47.8% and 41.0% in extracapsular resection group and intracapsular resection group respectively. No cerebrospinal fluid leak was found after surgery. Postoperative pathology confirmed that pseudocapsules had tumor cell infiltration. **Conclusions** Pseudocapsule based extracapsular resection is effective and safety for pituitary adenoma. It could increase total removal rate and increase biology cure rate in patients with functional pituitary adenoma without increasing postoperative complications.

【Key words】 Pituitary adenoma; Pseudocapsule; Extracapsular resection

				1	对象与方法				
				1936	1.1 研究对象	2015	4	~2016	7
2									231
	3-8			58				Hardy	(n=8)
				(n=19)		(n=2)		(n=29)	
				173		79	94		49.1
					2-17			(NF)	92
	2015	4	~2016	7	(PRL)		51		(GH)
	231			173					(ACTH)
					25				
					5				
					1.2 方法				
					1.2.1				

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1 (1) 3 6
MRI (2)
1 7 3 6
(T3) (FF) (T4) (TSH)
- 1(IGF- 1)
PRL
GH GH 1 ng/ml IGF- 1⁹
1.2.2

1.3 统计学方法 SPSS 21.0
 χ^2 P 0.05

2 结果

2.1 各类型垂体腺瘤假包膜发现率比较 1
90 83 NF
GH (P 0.05)

表1 各类型垂体腺瘤假包膜发现率比较(例, %)

肿瘤类型	例数	发现假包膜	未发现假包膜
NF	92	51(55.4)	41(44.6)
PRL	51	23(45.1)	28(54.9)
ACTH	5	2(40.0)	3(60.0)
GH	25	14(56.0)	11(44.0)
总计	173	90(52.0)	83(48.0)

注: $\chi^2 = 1.857, P=0.603$

2.2 各类型垂体腺瘤不同切除方式下全切率比较
1() 2 86
(95.6%) 17 100%
73 (88.0%)

2.3 各类功能型垂体腺瘤生物学治愈率比较 3
81 65
(P 0.05)

表2 各类型垂体腺瘤不同切除方式下全切率比较

肿瘤类型	囊外切除		分块切除		χ^2 值	P值
	例数	全切(例, %)	例数	全切(例, %)		
NF	51	47(92.2)	41	36(87.8)	0.199	0.730
PRL	23	23(100.0)	28	26(92.9)	1.710	0.495
GH	14	14(100.0)	11	9(81.8)	2.767	0.183
ACTH	2	2(100.0)	3	2(66.7)	0.833	1.000
总计	90	86(95.6)	83	73(88.0)	3.357	0.067

表3 各类功能型垂体腺瘤生物学治愈率比较

肿瘤类型	囊外切除		分块切除		χ^2 值	P值
	例数	治愈(例, %)	例数	治愈(例, %)		
PRL	23	21(91.3)	28	21(75.0)	1.324	0.250
GH	14	12(85.7)	11	7(63.6)	1.646	0.350
ACTH	2	2(100.0)	3	2(66.7)	0.833	1.000
总计	39	35(89.7)	42	30(71.4)	4.279	0.039

2.4 脑脊液漏发生率 77

90 43
(47.8%) 83
34 (41.0%) ($\chi^2=0.812$
 $P=0.368$)
2.5 术后病理结果 2()

3 讨论

1936 Costello² “ ”
(Pseudocapsule)
2006 Oldfield Vortmeyer¹
2 mm
2~3 mm

5 6 10 14

Lee¹⁰ 55.7%
52.0%
Lee
(1) (2) (3)
(4) (5)

10 Kim 14

5

Kawamata 5 Chamoun 15

Xie 16

Lee 10

GH

PRL

NF
55.4%

GH
56.0%

PRL

45.1%

PRL

Teramoto 17

Kim 14 1 000

(*P*=0.004)

17

100%

5 16 18 ACTH
10 11

6 7

GH

10

19

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一站式全脑动态容积 CTP - CTA 成像对颅脑损伤后脑血管痉挛的诊断价值

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【摘要】 目的 探讨一站式全脑动态容积CT灌注成像(CTP)联合CT血管成像(CTA)成像在颅脑损伤后脑血管痉挛中的应用及临床意义。**方法** 50例可疑有症状性脑血管痉挛表现的患者接受一站式全脑动态容积成像,CTP检查结果与对侧镜像区进行比较。**结果** 50例颅脑损伤患者中48例患者CTP存在原脑损伤范围外的低灌注区,同临床症状相符,准确性达96%,同对侧镜像区进行比较,各参数脑血流量(CBF)、脑血容量(CBV)、平均通过时间(MIT)及达峰时间(TIP)差异皆有统计学意义;50例颅脑损伤患者其中42例患者3D-CTA存在颅内大血管痉挛。**结论** 一站式全脑动态容积CTP-CTA成像技术应用于颅脑损伤后脑血管痉挛,通过CTP显示脑实质低灌注区以判断脑实质微循环血管痉挛的存在,CTA判断脑实质外大血管痉挛的存在,即CTP联合CTA对颅脑损伤后脑血管痉挛的早期诊断、治疗方案的选择、疗效的评估均有重要临床价值。

【关键词】 颅脑损伤; 脑血管痉挛; 灌注; 血管成像

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Diagnosis value of one stop whole brain dynamic volume CTP-CTA imaging in cerebral vasospasm after traumatic brain injury YU Hui-ping, ZHANG He-ping, LI Jin-miao. Department of Neurosurgery, Affiliated Quanzhou First Hospital, Fujian Medical University, Quanzhou 362000 China

【Abstract】 **Objective** To explore the application and clinical significance of one stop whole brain dynamic volume CTP-CTA imaging in cerebral vasospasm after traumatic brain injury. **Methods** Totals of 50 patients with suspected symptomatic cerebral vasospasm were treated with one stop whole brain dynamic volume imaging. The results of CTP were compared with that of the contralateral mirror area. **Results** In 50 patients, 48 showed low perfusion areas outside the scope of brain injury which was consistent with clinical symptoms. The accuracy rate was 96%. There were significant differences in cerebral blood flow (CBF), cerebral blood volume (CBV), time to peak (TIP) and mean transit time (MIT) compared to the contralateral mirror area. In 50 traumatic brain injury patients, 42 showed intracranial vasospasm of great vessels in 3D-CTA. **Conclusions** One-stop whole brain dynamic volume CTP-CTA imaging could be applied in evaluating cerebral vasospasm after traumatic brain injury. Microcirculation vasospasm in brain parenchyma could be detected by low perfusion cerebral area in CTP. Vasospasm of great vessels outside brain parenchyma could be detected by CTA. Therefore, CTP combined with CTA has significant clinical value in early diagnosis, selection of treatment options and evaluation of efficacy for cerebral vasospasm after traumatic brain injury.

【Key words】 Craniocerebral trauma; Cerebral vasospasm; Perfusion; Vascular imaging

1-2

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(Cerebrovascular Spasm CVS)

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