

					2015 4 ~2016
7	173				
	173	90	(52.0%)		
			(95.6%)		(88.0%)
			(89.7% 71.4%)		($\chi^2=4.279$)
P 0.05)	47.8%	41.0%		0	

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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.

Keywords Pituitary adenoma Pseudocapsule Extracapsular resection

		1						
		1936	1.1		2015 4 ~2016	7		
2						231		
			58		Hardy	(n=8)		
3-8			(n=19)		(n=2)	(n=29)		
			173		79	94		49.1
				2-17		(NF)		92
				(PRL)		51		(GH)
				25				(ACTH)
			5					
	150001							
			1.2					
			1.2.1					
	Email ningyfsfm@aliyun.com							

1 (1) 3 6
 MRI (2)
 1 7 3 6
 (T3) (FF) (T4) (TSH)

	%		%		²	P
NF	51	47.922	41	36.878	0.199	0.730
PRL	23	23.1000	28	26.929	1.710	0.495
GH	14	14.1000	11	9.818	2.767	0.183
ACTH	2	2.1000	3	2.667	0.833	1.000
	90	86.956	83	73.880	3.357	0.067

-1(IGF-1)
 PRL
 GH GH 1 ng/ml IGF-1⁹
 1.2.2

	%		%		²	P
PRL	23	21.913	28	21.750	1.324	0.250
GH	14	12.857	11	7.636	1.646	0.350
ACTH	2	2.1000	3	2.667	0.833	1.000
	39	35.897	42	30.714	4.279	0.039

1.3 SPSS 21.0
² P 0.05
 2
 2.1 1
 90
 83 NF
 GH
 (P 0.05)

2.4 77
 90 43
 (47.8%) 83
 34 (41.0%) (χ²=0.812)
 P=0.368
 2.5 2()

	1	(%)
NF	92	51(55.4)
PRL	51	23(45.1)
ACTH	5	2(40.0)
GH	25	14(56.0)
	173	90(52.0)

3
 1936 Costello²
 (Pseudocapsule)
 2006 Oldfield Vortmeyer¹

² 1.857 P=0.003
 2.2
 1() 2 86
 (95.6%) 17
 100%
 73 (88.0%)

2 mm
 2~3 mm
 5.6 10 14

2.3 81 65 3
 Lee¹⁰ 55.7%
 52.0%
 Lee
 (1) (2) (3)
 (P 0.05) (4) (5)

10 Kim 14

5

Kawamata 5 Chamoun 15

Xie 16

Lee 10

GH

PRL

GH
56.0%

PRL

NF
55.4%

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

- 1 Oldfield EH Vortmeyer AO. Development of a histological pseudocapsule and its use as a surgical capsule in the excision of pituitary tumors J . J Neurosurg 2006 104(1):7- 19.
- 2 Costello RT. Subclinical Adenoma of the Pituitary Gland J . Am J Pathol 1936 12(2):205- 216
- 3 J . 2013 93(35):2813- 2815
- 4 Kuwayama A Treatment and long- term results of Cushing disease J . Folia Endocrinol Japon 2003 79:17- 19.
- 5 Kawamata T Kubo O Hori T. Surgical removal of growth hormone- secreting pituitary adenomas with intensive microsurgical pseudocapsule resection results in complete remission of acromegaly J . Neurosurg Rev 2005 28(3):201- 208
- 6 Jagannathan J Smith R DeVroom HL et al. Outcome of using the histological pseudocapsule as a surgical capsule in Cushing disease J . J Neurosurg 2009 111(3):531- 539.
- 7 Monteith SJ Starke RM Jane JA et al. Use of the histological pseudocapsule in surgery for Cushing disease: rapid postoperative cortisol decline predicting complete tumor resection J . J Neurosurg 2012 116(4):721- 727.
- 8 Mason RB Nieman LK Doppman JL et al. Selective excision of adenomas originating in or extending into the pituitary stalk with preservation of pituitary function J . J Neurosurg 1997 87(3):343- 351.
- 9 J . 2015 95(5):324- 329.
- 10 Lee EJ Ahn JY Noh T et al. Tumor tissue identification in the pseudocapsule of pituitary adenoma: should the pseudocapsule be removed for total resection of pituitary adenoma? J . Neurosurgery 2009 64(3Suppl):ons62- ons70
- 11 Qu X Yang J Sun JD et al. Transsphenoidal pseudocapsule- based extracapsular resection for pituitary adenomas J . Acta Neurochir (Wien) 2011 153(4):799- 806
- 12 Ceylan S Cabuk B Koc K et al. Endoscopic distinction between capsule and pseudocapsule of pituitary adenomas J . Acta Neurochir (Wien) 2013 155(9):1 611- 1 619.
- 13 Prevedello DM Ebner FH de Lara D et al. Extracapsular dissection technique with the cotton swab for pituitary adenomas through an endoscopic endonasal approach: how I do it J . Acta Neurochir (Wien) 2013 155(9):1 629- 1 632.
- 14 Kim EH Ku CR Lee EJ et al. Extracapsular en bloc resection in pituitary adenoma surgery J . Pituitary 2015 18(3):397- 404.
- 15 Chamoun R Takashima M Yoshor D. Endoscopic extracapsular dissection for resection of pituitary macroadenomas: technical note J . J Neurol Surg A Cent Eur Neurosurg 2014 75(1):48- 52.

CTP - CTA

CT (CIP) CT (CTA)
 50 50 48 CTP
 96%
 (CBF) (CBV) (MIT) (TTP) 50
 42 3D-CTA CTP-CTA
 CTP CTA

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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 (TTP) 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.

Keywords Craniocerebral trauma Cerebral vasospasm Perfusion Vascular imaging

1-2

362000

(Cerebrovascular Spasm CVS)

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| <p>16 Xie T Liu T Zhang X et al. Time to Revive the Value of the Pseudocapsule in Endoscopic Endonasal Transsphenoidal Surgery for Growth Hormone Adenomas J . World Neurosurg 2016 89:65-71.</p> <p>17 Teramoto A Sano K Osamura RY et al. Immunohistochemical observations of the pituitary adenomas with the use of enzyme-labelled antibody method- on the residual pituitary gland and "capsule" of the adenoma (author' s transl) J . Neurol Med Chir (Tokyo) 1979 19(9):895-902.</p> | <p>18 Ku CR Kim EH Oh MC et al. Surgical and endocrinological outcomes in the treatment of growth hormone- secreting pituitary adenomas according to the shift of surgical paradigm J . Neurosurgery 2012 71(2 Suppl Operative):ons192- ons203.</p> <p>19 J . 2016 16(3) 320-323 (2016-12-02)</p> |
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