

특수 환자군에서의 간질

Epilepsy : Special Populations

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Abstract

In this chapter, epilepsy or seizure in special populations or conditions, pregnant women or those who are planning to be pregnant elderly individuals, patients with a systemic disease, and mentally retarded subjects are discussed. Pregnancy in pregnant woman is associated with increased obstetric risks and increased adverse neonatal outcomes. Effective control of maternal seizures with the least risk to the fetus is the goal. Careful planning and management of any pregnancy are essential to increase likelihood of a healthy outcome both for the mother and the baby. Some guidelines for woman with epilepsy will be introduced. The elderly are the most rapidly growing part of our population, and the prevalence of epilepsy is also rapidly increasing in this group. Age - related physiologic changes in hepatic and renal function, volume of distribution, and exaggerated sensitivity to side effects should be considered. The elderly with a systemic disease such as cardiovascular disorder and renal and hepatic failure require a more complex approach. Epilepsy is a common occurrence in individuals with mental retardation. The degree of mental retardation, associated behavioral disorders, and the type of epilepsy or epileptic syndrome can affect the treatment modality and prognosis. The treatments should be tailored to the needs of individual patients. Comprehensive management requires the involvement of an interdisciplinary team to enhance functioning and achieve optimal quality of care.

Keywords : Epilepsy; Pregnancy; Elderly; Systemic disease; Mental retardation

· ; ; ; ; ;

가 1.5~3 (1, 2).

(1~5). 2) 가 ?

가

(pharmacokinetics)

1/3 가 가 , 가 가 .

(folic acid) (free radicals) 가

가 (1). (2).

가 Valproate (neural tube defect)

(spina bifida) 2% ,

100~200 .

Carbamazepine 50~100

(1%) . Phe-

nytoin phenobarbital

2%, 1.8% 4~5

* 가?

*가 ? topiramate limb agenesis가

* ? fel-

* ? bamate, gabapentin, lamotrigine, tiagabine, oxcar-

* ? bazepine, zonisamide, levetiracetam

* .

(1, 2, 6).

1) ?

? 3) ?

? ?

2~3 . 가 ,

2~3

(1, 2, 6).

90%가 . ,

가 가 , 0.4 mg
가 (1, 2).
3 alpha - fetoprotein 가 (7).
(1, 2).
가 가 , 5)
2 ~ 4% 가 Mono-
가 가 genic 가
1 ~ 3 가 (1, 2).
(juvenile
myoclonic epilepsy) , 2.
(1, 2,
4). 가
6 , 가 가
(2).
4) ? (free
가 form) 가 가
가
Valproate 1,000 mg
가 la- (2).
motrigine . Carbamazepine alpha - fetoprotein ,
oxcarbazepine 가 0.4 mg
(1). 4 ~ 5 mg 12 .
(neural tube defect) 가 (cytochrome P450) (pheny-
valproate carbamazepine toin, carbamazepine, barbiturates)
4 ~ 5 mg 10 ~
, 20 mg K (1, 7).

3.

2

. 1 ~ 2%

,

lorazepam diazepam

. Meperdine

(1, 2).

4.

가

. Benzodiazepines phenobarbital

,

(1).

,

,

60

10

82

, 65

,

가

(2).

가

(8).

,

가

,

(7).

가

1)

가

.

.

가

2) 가

.

가

3) 가

.

4)

가

carbamaze-

pine valproate

.

5)

,

valproate + carbamazepine +

phenobarbital

.

6)

.

7)

.

8) Valproate

가

,

3 ~ 4

.

9) Valproate

carbamazepine

16

alpha - fetoprotein

,

(18 ~ 19)

(22 ~ 24)

alpha - fetoprotein

ace-

tylcholinesterase

.

10) Valproate

가

lamotrigine

.

약물명	혈장 단백질 결합률 (%)	간 대사	신장 배설	기타
Carbamazepine	70~80%	NA	40%	
Felbamate	<10%	NA		
Gabapentin	<10%	NA		
Lamotrigine	55%	31	30~60%	- glucuronide conjugation()
Levetiracetam	<10%	2~15		
Oxcarbazepine		NA		
Phenobarbital	50%	NA		
Phenytoin	80~93%		3~4 mg/kg : 10%	
Primidone				
Topiramate	9~17%	NA		
Valproate	87~95%	11~17	30~40%	
Zonisamide		NA		

NA : 가

1.

2.

Carbamazepine	/	\$\$\$
Felbamate	가	\$\$\$\$
Gabapentin		\$\$\$\$\$
Lamotrigine		\$\$\$\$\$
Levetiracetam		\$\$\$\$\$
Oxcarbazepine		\$\$\$\$\$
Phenytoin		\$
Phenobarbital		\$
Valproate		\$\$\$
Tiagabine		\$\$\$\$\$
Topiramate		\$\$\$\$\$
Zonisamide		\$\$\$\$\$

(1).

(1, 8).

가

(1, 2)

, , 가, , , , , Carba- 1) Phenytoin
mazepine, phenytoin, barbiturates(phenobarbital, 가 1
primidone) ,
valproate 가 (therapeutic range)
(8 ~ 11). 가 , , ,

2.

가 가

, , , D 가
가
(phenobarbital, phenytoin, benzodiazepines) 2) Carbamazepine
propylene glycol
, phenytoin
. Oxcarbazepine 가

3) Valproic acid

가

Phenytoin

(1, 8).

가

가

1

gabapentin

levetiracetam

1.

25%

(1,

gine

lamotri-
carbamazepine

8).

35%가

8 ~ 11

(8),

carbamaze-

10%

pine

(1),

phenobarbital primi-

(1, 12).

done

가

(1, 8).

(dialysis dysequilibrium syndrome).

3.

(1, 8).

가

가

가

. Phenytoin, valproate, phenobarbital

phenytoin

5 ~ 10 ug/ml

(1, 8).

가

1

phenytoin
가 . Valproate phenytoin valproate
가 , valproate
phenytoin . Phenobarbital ben-
zodiazepines
Phenobarbital 가 Carbamazepine
Pheno- 가 (1).
barbital 40~60%가
가 . 3.
Primidone
Carbamazepine 가 ,
Ethosuximide ,
가 가 Gaba- 4 (8).
pentin, lamotrigine, vigabatrin, topiramate
carbamazepine
(1, 12). 가
carbamazepine phenytoin
phenytoin benzodiazepines
3 가
가 가 25 mg
가
, ,
. Reye (1).
Wilson
(1).
가 carbamazepine, phenobarbital, primidone, phe-
nytoin INR
valproate ,
가 phenobarbital phenytoin quinidine, digoxin,

lidocaine, mexillitine 가

. amiodarone phenytoin 가 (15).

verapamil carbamazepine

가 . phenytoin quinidine 가

(ectopy)

가

21%, 가 50%

, ,

(1, 8). 20%

가

4.

가

(16~18).

(13, 14).

가

가 . 24~48 (16, 17, 20).

3

1.

cyclophosphamide, azathioprine .

ethosuximide가 car- 가

bamazepine valproate 가

(15).

2.

가 anti - DNA가

가

가

가

ramate, lamotrigine, oxcarbazepine)가, (- 가 ethosuximide(valproate, lamotrigine, clonazepam)가, (16). valproate(lamotrigine, topiramate, felbamate) phenytoin, carbamazepine, valproate 가 . barbiturates(phenobarbital, primidone) benzodiazepines , , 가 가 (16).

1) 가 .

2) 가 .

3) 가 , , (flash light) ,

4) 1~3 . carnitine 45%

5) 가 .

6) (16~18). 가 (5) 24 가 (21).

가)

가

3.

1 1, 2 . , 2~3 1.5 , phe- 3 가 (22).

