

1998 7 20 1999 3 26
: , 가
Tel:02)3779-1287, Fax:02)780-1279

가

가

2 가 1994
10cGy , 3 5~6 150~180cGy 6MV 가
18 42 4~5
가

: , ,

가
가

가

Prednisone,
6-11)

가

1,2)

가

9,12-16)

9-11)

3,4)

가 가
가

1994 3 가

2

Edrophonium chloride(Tensilon®), Neostigmine
bromide(Physostigmine®), Pyridostigmine
bromide(Mestinone®)가

Oosterhuis

33

.⁴⁾ (Table 1).

가
1

1992 12 가
 가
 9.0nmole/L
 (: 0.6nmole/L)
 grade
 IV(grade V)
 1993 1
 Pyridostigmine bromide(Mestinone®),Azathioprine,
 Prednisone 가 1993 5
 가
 ,1994 3

3 6 180cGy 10cGy
 39 1988 1
 5.59nmole/L
 grade III
 1988 6
 Pyridostigmine bromide(Mestinone®),Azathioprine, Prednisone
 가 1994 4
 가
 ,1996
 3 10cGy 3 5 150cGy

Table 1. Global Clinical Classification of Myasthenic Severity by Oosterhuis (OGCC)

Class 0	No complaints, no signs after exertion or at special testing
Class 1	No disability, Minor complaints, minor signs. The patient knows that he has MG, but family members or outsiders do not perceive it. The experienced doctor may find minor signs at appropriate testing, e.g. diminished eye closure, some weakness of the foot extensors or triceps muscles, the arms cannot be held extended for 3 minutes. The patient may have complaints such as eyelids or diplopia only when fatigued, inability to perform heavy work.
Class 2	Slight disability, clear signs after exertion. The patient has some restriction, in daily life, e.g. he cannot lift heavy loads, cannot walk for more than an hour, has intermittent diplopia. Bulbar signs are not pronounced. Family members are aware of the signs, but outsiders (inexperienced doctor included) are not. Weakness is obvious at appropriate testing.
Class 3	Moderate disability, clear signs at rest. The patient is restricted in domestic activities, needs some help in clothing, meals have to be adapted. Bulbar signs are more pronounced. Signs of MG can be observed by any outsider.
Class 4	Sever disability. The patient constant support in daily activities. Bulbar signs are pronounced. Respiratory function is decreased.
Class 5	Respiratory support is needed.

OGCC 4 4
 8 OGCC
 3 20 OGCC 2
 .(Fig. 1.)
 32
 . (Fig.2.) 42
 OGCC 4
 5 OGCC 3 10
 OGCC 2
 (Fig.1.)

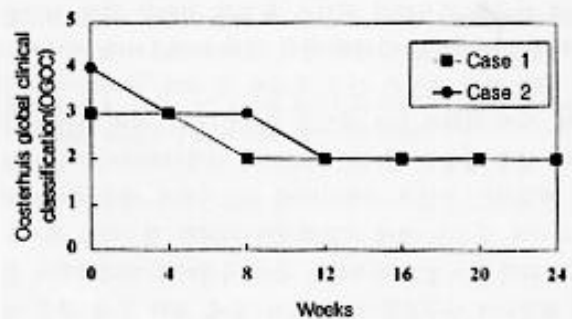


Fig. 1. Changes of OGCC after TBI.

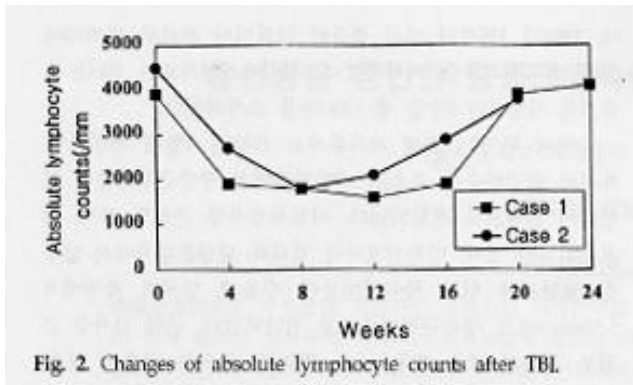


Fig. 2. Changes of absolute lymphocyte counts after TBI.

5

가 30
(Fig.2).

18

RTOG grade 2

가
Jolley
Edrophonium chloride(Tensilon®), Neostigmine
bromide(Physostigmine®), Pyridostigmine
bromide(Mestinone®), Neostigmine
가
Prednisone, Azathioprine,
Cyclophosphamide, Cyclosporine

5~10)

Azathioprine

10%

5)

가

가 가
3,6)

17) 10 0.2 14.2 가
2~3 , 10 , 40
2)

Schulz

18) 1981 Engel 가

가

9) Yamanaka 3

가 가 60%, 가 20%, 가
20%

1993 Durelli 12

19)

9

5

24
11)

2

가

가

42

1

4

가

Total Body Irradiation for Myasthenia Gravis with Thymoma - Case Report -

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Myasthenia gravis(MG) is relatively rare occurring as one of important autoimmune disease to affect neuromuscular junction. This study was clinically to evaluate total body irradiation (TBI) against two patients including 33-year and 39-year females for chronic MG with thymoma who hospitalized in the St. Mary's Hospital, Catholic University since 1994 as well as who showed no response by thymectomy, immunotherapy and hormonal therapy. TBI designed by the dose of 150~180 cGy consisting of 10 cGy per fraction, three times a week, for 5~6 weeks using linear accelerator of 6 MV. During the treatment of TBI, they did complain acute side effect such as vomiting and also appear improved physical condition from 4~6 weeks after TBI. Through the follow-up period of 18 or 42 months after TBI, they did not have any symptomatic recurrence. Consequently, the results suggest that TBI can be used as an alternative tool for the patients concurrently for MG with thymoma who had been refractory to various conventional therapies like thymectomy, immunotherapy and hormonal therapy.

Key Words :Myasthenia gravis, Thymoma Total body irradiation