

**Pergolide**

**Bromocriptine**

**1**

**A Case of Bromocriptine Resistant Hyperprolactinemia  
Which was Responsive to Pergolide**

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**=Abstract=**

Dopamine agonists are commonly used in the medical treatment of prolactinomas. Bromocriptine has been the most widely used ergot derivative for two decades. Its oral administration, at a daily dose of 2.5 – 7.5 mg, restored normal gonadal function and normoprolactinemia in about 80% of patients. Nevertheless, a subset of patients could not achieve normal prolactin levels or resume normal gonadal function despite 15 – 30 mg/day bromocriptine for at least 6 months. Subsequently, these prolactinomas were considered to be resistant to bromocriptine. The percentage of bromocriptine - resistant prolactinoma patients reported in the literature varies between 5 and 17% according to the series.

Patients with bromocriptine resistance or bromocriptine intolerance have, however, been treated with other dopamine

agonists, such as lysuride, pergolide, cabergoline, or quinagolide. Until cabergoline recently gained a product licence in the UK, there was no alternative dopamine agonist with a licence for this purpose. Quinagolide(CV 205 – 502, Norprolac, Sandoz) is a non – ergot dopamine agonist with improved selectivity for the D2 receptor, designed to retain the active pharmacophore of bromocriptine without the ergot moiety that might be responsible for side – effects.

We have experienced a case of bromocriptine resistant hyperprolactinemia which was responsive to pergolide. So we report this case with a brief review of literatures.

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**Key Words** : Hyperprolactinemia, Bromocriptine, Pergolide

estrogen

(galactorrhea)

가

prolactin , , prolactin

(pressure effects) . prolactin

, , ,

Bromocriptine, cabergoline, quinagolide dopamine

(agonist) prolactin 가

. Bromocriptine 가 dopamine

Bromocriptine 90% prolactin

가 70%

2 ,

, Raynaud , , bromocriptine

5 - 10% bromocriptine  
Cabergoline, pergolide, quinagolide  
dopamine  
bromocriptine . Cabergoline bromocriptine  
bromocriptine  
pergolide

35

1 가

가

158cm, 57kg, 120 / 80 mmHg, 36.5°C,  
80 /

가

LH : 3.7 mIU/ml, FSH : 4.9 mIU/ml, prolactin : 71.8 ng/ml,  
TSH : 0.83 µU/ml, DHEA - S : 365.08 µg/dl, 17 - OHP : 1.31 ng/ml

. Parlodel 2.5

mg prolactin

prolactin 가 66.9 ng/ml 가 Parlodel

prolactin 가 184.8 ng/ml . Prolactin  
(sella turcica)

prolactin

가 Clomid Pergonal

가 Parlodel

가 prolactin 가

Parlodel  
 pergolide  
 prolactin 가 47.1 ng/ml  
 Pergolide  
 prolactin 가 . prolactin 100 µg

Prolactin factor : PIF)  
 dopamine (arcuate nuclei) (axon)가  
 prolactin (ventromedial nuclei) (portal system) prolactin (lactotrophs) (pituitary stalk) dopamine D2 가  
 (capsule) prolactin 가  
 Dopamine

adenylate cyclase cyclic adenosine monophosphate(cAMP) (transcription) calcium prolactin D2 adenylyate cyclase (central nervous system) 5 가 dopamine D1 D2 adenylyate cyclase (agonist)가 D1 , alpha1 adrenalin , serotonin (antagonist)

(Besser and Lamberts, 1990 ; Wood et al., 1991 ; Bevan et al., 1992).  
 gamma amino butyric acid(GABA) peptide(gonadotropin associated peptide : GAP) prolactin 가 dopamine 가  
 prolactin . 가

(adenoma) prolactin prolactin  
 (antiser) prolactin (Molitch, 1992).

prolactin (castration)  
 가 . 가 가  
 , , 가  
 prolactin  
 prolactin 가 estrogen  
 1994). (Lindstedt, 1994 ; Speroff et al.,  
 prolactin  
 (lactotrophs) (gonadotrophs) prolactin  
 prolactin (paracrine)  
 alpha . Prolactin

prolactin  
 (Crosignani et al., 1991 ; Inaudi et al., 1992).

bromocriptine  
 bromocriptine  
 (Crosignani et al., 1991 ; Asukai et al., 1993).  
 Bromocriptine D2 prolactin  
 ergot alkaloid . bromocriptine  
 . 90%  
 1/10 Parkinson  
 (Speroff et al., 1994). Bromocriptine  
 D2 cAMP calcium  
 (turnover) . cAMP 가  
 prolactin 가 prolactin  
 . Prolactin 6  
 25% . Bromocriptine prolactin  
 prolactin (lysosomal degradation)

(Bevan et al., 1992). 5% (intolerance) (Ginsburg et al., 1992). , , (vertigo), (postural hypotension), 가 (drowsiness) . (splanchnic beds) 1% . Bromocriptine (Kulig et al., 1991). Bromocriptine 가 Bromocriptine 가 1 (first pass effect) 2.5 mg . (Jasonni et al., 1991 ; Sarapura and Schlaff, 1993). Bromocriptine (depot) 10 가 가 50 - 100 mg 2 (Besser and Lamberts, 1990 ; Cunnah and Besser, 1991). 1 12 prolactin 가 50% . 2/3 5 가 80% 1 가 prolactin 가 (rebound) . 1 bromocriptine (Ciccarelli et al., 1989). prolactin bromocriptine .

(Weingrill et al., 1992). (compliance)  
 bromocriptine 가  
 (Cicinelli  
 et al., 1996).  
 Pergolide bromocriptine 가  
 ergot . 24 – 48 prolactin  
 가 . Pergolide Parkinson  
 가가  
 . bromocriptine 가  
 . 25 µg (microadenoma)  
 75 µg (macroadenoma) 75 – 150 µg  
 (Lamberts and Quik, 1991).

bromocriptine  
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pergolide

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