

Terfenadine과 Ketoconazole 병용투여에 의해 유발된 Torsade de Pointes 1예

오석규 · 국 향 · 임수빈 · 정진원 · 박양규 · 박옥규

= Abstract =

A Case of Torsade de Pointes after Treatment with Terfenadine and Ketoconazole

Seok-Kyu Oh, M.D., Hiang Kuk, M.D., Su-Bin Lim, M.D,
Jin-Won Jeong, M.D., Yang-Kyu Park, M.D., Ock-Kyu Park, M.D.

Department of Internal Medicine, Wonkwang University School of Medicine, Iksan, Korea

Torsade de pointes(TdP) is a form of polymorphic ventricular tachycardia that is associated with prolongation of the QT interval. Although it occurs in many clinical settings, torsade de pointes is most commonly caused by drugs.

The second generation antihistamines, including terfenadine and astemizole, have little sedation or other adverse effects on the CNS. They have been used widely to treat various allergic diseases, but it has been reported that overdoses or combinations with antifungal agents or macrolide antibiotics may lead to TdP. We report a case of TdP that occurred during combination therapy of terfenadine and ketoconazole.

KEY WORDS : Torsade de pointes · Terfenadine · Ketoconazole.

서 론

Torsade de pointes(TdP) QT (po -

lymorphic ventricular tachycardia)

Terfenadine astemizole 2

macrolide TdP가 1-8)

terfenadine ketoconazole TdP

증 례

교신저자 : , 570 - 711 344 - 2 : 61 14

) (0653) 850 - 1055,

) (0653) 52 - 8480

1 2 3 terfenadine 60mg 14/0.8mg/dl, Na⁺/K⁺ 143/4.1mEq/L, Ca²⁺/Mg²⁺
 . 5 8.7/2.0mg/dl PT 12.0
 terfenadine sec, aPTT 25.9sec , B
 60mg ketoconazole 200mg 1 2 HBs Ag(-), HBs Ab(+)
 1 5 X : ,
 3 4 ,
 20 .
 : 2 : 38
 , QT 720msec , U
 가 (Fig. 1).

가 : ,
 : 110/70mm
 Hg, 37 , 20 ,
 36.6 .
 : 12.2g/dl,
 8.3 × 10³/mm³, 301 × 10³/mm³ .
 AST/ALT
 126/176IU/L 가 BUN/Cr

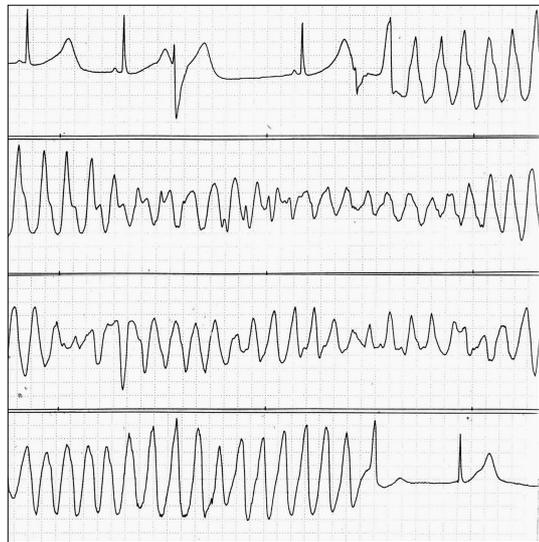


Fig. 2. Continuous recordings of Holter monitor during syncopal episode showing onset and termination of torsades de pointes. QT interval is 820 msec.

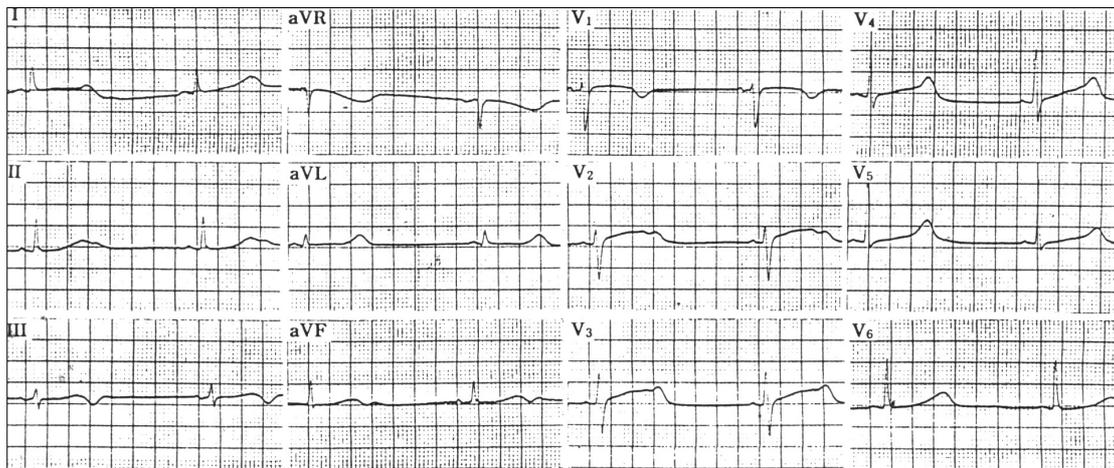


Fig. 1. An electrocardiogram showing severe bradycardia and prolonged QT interval(720 msec) at admission.

QT (820msec), Torsade de pointes(TdP)가 TdP가 QT 620msec (Fig. 2). QT 20 가 QT 51, QT 460msec (Fig. 5), ST 6 QT 10, 1 57, QT 420msec

(bigeminy of premature ventricular beats)(Fig. 3) 2 4 (salvos of 2 to 4 consecutive beats)(Fig. 4) 2

가 TdP가 3 가



Fig. 3. Bigeminy of premature ventricular beats.



Fig. 4. Salvos of 2 to 4 consecutive beats.

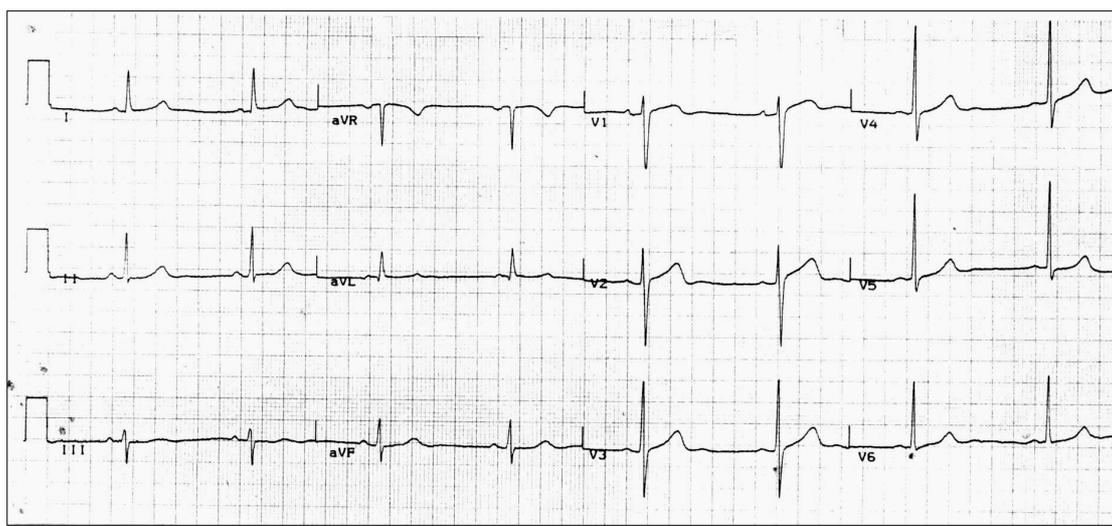


Fig. 5. An electrocardiogram taken on the 5th hospital day shows normalization of QT interval(460 msec).

고 찰

TdP long QT, (class IA, IC, III), marolide QT 1-8). TdP (early afterdepolarization, EAD) TdP EAD (dispersion) (triggered

activity) (reentry) TdP clarithromycin, cimetidine, prepuclid
^{9,10)} TdP
Terfenadine, astemizole, loratadine , 1-8)
2 TdP
. Terfenadine butyrophenone .
TdP가 MgSO₄
가 6,16)
60mg 1 2 Na⁺ - K⁺
가 , 1 2 ATPase K⁺
, 8.5 , QT
cytochrome P - 450 TdP
, 24 48 60% , 16,17) MgSO₄
40% 12,13) TdP
Terfenadine astemizole , TdP가
, ketoconazole
erythromycin, clarithromycin
macrolides , QT MgSO₄
TdP MgSO₄ 2g 2 3
¹⁻⁸⁾ Terfenadine 2 4mg/
K⁺ MgSO₄ 2g 6
¹⁴⁾ 8mg/ 가 3
ketoconazole cytochrome P - 450 MgSO₄ 2g 가 ,
terfenadine terfena -
dine 가 QT 500msec
가 15)
terfenadine ¹⁶⁾ TdP QT
, terfenadine isoproterenol
ketoconazole 가 TdP
4 , isoproterenol
ketoconazole 90 , 100 120
terfenadine terfenadine 16,17)
가 TdP가 가
. terfenadine terfenadine
terfenadine ketoconazole (TdP) terfenadine
가 TdP 가 QT
. terfenadine ketoconazole
450 terfenadine cytochrome P - erythromycin, .

요 약

terfenadine
 , terfenadine ke -
 toconazole
 QT
 Torsade de pointes 1
 , terfenadine
 ,
 QT ,
 ,
 , TdP
 TdP MgSO₄

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