

1 In the **Qualitative\_Concept** last decades , **Quantitative\_Concept** number of **Pharmacologic\_Substance** drugs were withdrawn **Activity** due to **Functional\_Concept** cases of TdP , **Functional\_Concept** leading to **Qualitative\_Concept** intensify **Research\_Activity** assessment of drug **Clinical\_Attribute** QT interval .

2 In our case , **Pharmacologic\_Substance** hydroxyzine was identified as the **Laboratory\_or\_Test\_Result** only drug **Quantitative\_Concept** able **Finding** to **Qualitative\_Concept** induce **Functional\_Concept** QTc interval prolongation in the **Patient\_or\_Disabled\_Group** patients **Functional\_Concept** active **Pharmacologic\_Substance** medication .

3 Moreover , a **Injury\_or\_Poisoning** hydroxyzine overdose was **Therapeutic\_or\_Preventive\_Procedure** detected **Idea\_or\_Concept** probably due to **Functional\_Concept** high posology , bile ducts obstruction , and **Disease\_or\_Syndrome** liver impairment -LRB- rise in GPT -RRB- .

4 Cetirizine is the **Pharmacologic\_Substance** hydroxyzines **Qualitative\_Concept** major **Functional\_Concept** active **Biologically\_Active\_Substance** metabolite ; **Body\_Substance** unfortunately , its blood **Classification** level **Quantitative\_Concept** dosage was **Functional\_Concept** not **Functional\_Concept** performed .

5 We suppose that **Finding** combination of **Injury\_or\_Poisoning** hydroxyzine overdose and **Population\_Group** transient **Pathologic\_Function** renal failure could have **Pharmacologic\_Substance** lead **Qualitative\_Concept** to **Pharmacologic\_Substance** cetirizine **Finding** accumulation .

6 However , **Pharmacologic\_Substance** cetirizine seems **Qualitative\_Concept** to be safe regarding ventricular **Clinical\_Attribute** repolarization , even at supratherapeutic dose .

7 Theres **Quantitative\_Concept** only **Quantitative\_Concept** one **Occupational\_Activity** published **Qualitative\_Concept** clinical **Functional\_Concept** case **Pharmacologic\_Substance** of hydroxyzine-induced **Finding** QT prolongation .

- 8 This case describes recurrent syncope during hydroxyzine treatment at usual posology in a 34-year-old woman presenting a hERG mutation .
- 9 hERG gene codes for the subunit of a potassium channel -LRB- I -RRB- Kr -RRB- implicated in the ventricular repolarization .
- 10 Experimentally , it was shown that hydroxyzine could be proarrhythmic by blocking hERG channels and therefore prolonging action potential duration , thus inducing TdP .
- 11 In the French pharmacovigilance database , we found 24 cases of QT prolongation mentioning hydroxyzine with a suspected accountability assumed in 7 cases .
- 12 We publish here the first clinical case of hydroxyzine-associated QT prolongation with drug dosage data .
- 13 The association of hydroxyzine , especially at high posology , and others already well-known TdP risks factors -LRB- including hypokalemia and bradycardia -RRB- could induce QT prolongation and lifethreatening TdP .
- The present work underlines the recent addition of

16