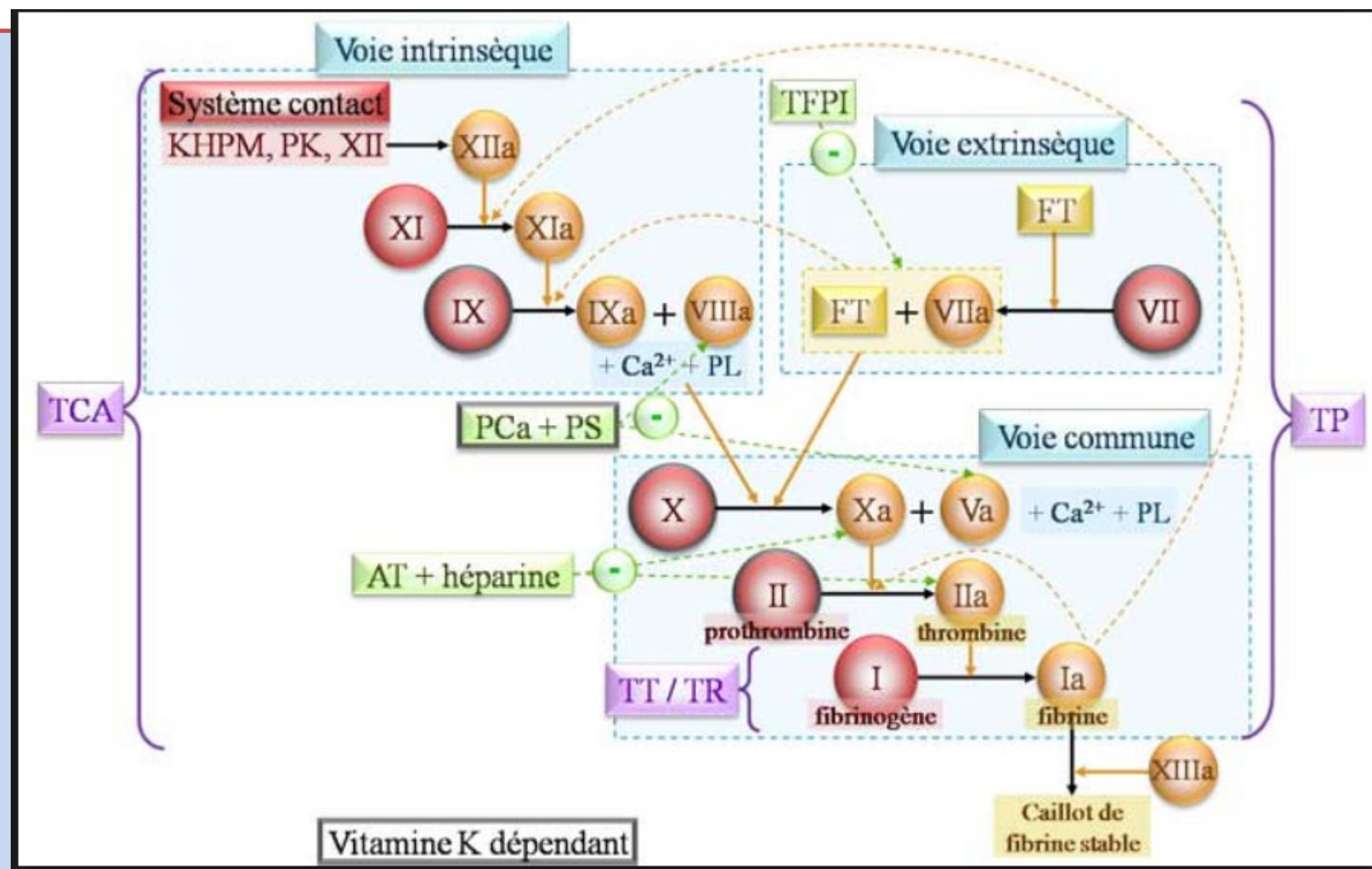


Background

Prescription of vitamin k antagonists (VKA) is very common actually.
VKA overdose is frequent in patients admitted to emergency department (ED).
The most common adverse reaction is **bleeding** which had a life threatening impact.
The management of VKA overdose in ED should consider **predictive factors of recurrence** to ovoid future complications.

The aim of our study was to identify predictive factors of recurrence in patients admitted to ED with VKA overdose.



Patients & Methods

Prospective observational study during **three years**.
Inclusion of adult patients admitted to ED for VKA overdose (**INR over the therapeutic range**) and patients who experienced VKA overdose during their hospitalization in ED.
Collection of data including demographics, indications of VKA, VKA dose, comorbidities, chief complaints, physical examination, lab data including INR measurements and treatment at the ED.

Follow-up during during one year.

Univariate analysis



Results & discussion :

Inclusion of **186** patients.
Mean age = **67 ±12** years. Sex-ratio=**0,8**

VKA indications n(%) :

- Atrial fibrillation **117(66)**.
- Mechanical valve replacement **37(2)**.
- Thrombosis **15(8.5)**.



Chief complaints n(%):

- Bleeding **58(31)**.
- Ecchymosis **15(8)**.

Sixty percents of patients were asymptomatic (n=112)

Mean INR : **5,7 ±3,5**.

INR was immeasurable in **39** patients (21%).

Causes of overdose n(%):

- Lack of monitoring **165(88)**.
- Wrong dose intake **2(1.1)**.
- Drug interaction **6(3)**.
- Recent initiation of VKA **10(5.5)**.

Treatment n(%):

- ±VKA one day withdrawal **171 (92)**
- Recent change in posology **173(93)**
- Vitamin K **80(43)**,
- PTCC **4(2)**.

Follow-up was possible in **68** patients.
Recurrence of VKA overdose was observed in 28 patients.
Univariate analysis identified one factor as predictive of recurrence

immeasurable INR as predictive factor of recurrence (p=0.002).

Many randomized clinical trials studied the relationship between mortality and VKA treatment.
Not enough studies focusing on predictive factors of recurrence.

Only one factor was predictive of recurrence in our study.

It was a biological factor easy to identify at admission.

Further studies with multicenter setting may set-up **a new score** such as HAS-BLED, ATRIA or ORBIT scores .

It can be calculated **to identify patients at high risk of VKA overdose recurrence**.

Conclusion & perspectives

The **early identification** of predictive factors of recurrence contribute to improve VKA overdose management and thus the prognosis of patients.

VKA still widely prescribed despite the availability of Non-vitamin K antagonists oral anticoagulants (NOACs), which are actually considered safer than VKA .

In our local settings, it stills the unique anticoagulation drug available.

VKA units may help emergency physicians, in collaboration with other specialists, to manage properly these patients whose number is increasing nowadays>