# Management of the new antiplatelets and anticoagulants

Session No.: 1

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# Guidelines : Anti-thrombotic agents and digestive endoscopy

**2006 : French guideline (SFED)**

*Endoscopy 2006 ;38:632-38*

**2007 : Japanese guideline :**

*Digestive Endoscopy 2007;19:161-66*

**2008 : British guideline**

*Gut 2008 ;57:1322-29*

**2009 : US guidelines (ASGE)**

*Gastrointest Endosc 2009 ;70 :1060-70*

**2011 : ESGE guideline**

*Endoscopy 2011 ;43 : 445-58*

# Guideline update

**Group and ESGE guideline committee**

JM Dumonceau, A. Veitch, G Vanbervliet, B. Napoleon, A Raffaeli, C Boustiere and C Hassan

**Text to be finalized on April 30th in London**

**Publication in Endoscopy late 2015**

**In association with BSGE to also provide recommendations about NOAC**

# What’s new since 2011 ?

**New APA : prasugrel, ticagrelor <-> clopidogrel**

**Better evaluation of the thrombotic risk in patients with coronary stents**

**New endoscopic procedures : ESD**

# New APA inhibit platelets activation

- Prasugrel (Thienopyridines)

antagonist of the $P2Y_{12}$ receptor (ADP activator)

biotransformed into molecules that bind ***irreversibily*** this receptor

**more potent than clopidogrel**

- Ticagrelor

New class of antagonist of $P2Y_{12}$, without biotransformation, which binds ***reversibily*** the receptor.

**more rapid onset and a quicker offset than clopidogrel**

# Discontinuation of APA : a new paradigm ?

**In patients with no associated risk factors of thrombosis and a stable coronary disease, it would be possible to stop aspirin for a short period (3 days)**

**After Drug Eluting Stent (DES), the dual APA therapy period may be reduced from 12 to 6 months.**

**Patients treated with New DES have a lower risk of early/late thrombosis than patients treated with BMS**

*ESC/EACTS 2014 Guidelines on myocardial revacularization*
*J Am Coll Cardiol. Stent thrombosis in new generation drug eluting stents*
*2014 ;64(1):16-24*

# APA : « Stop and Start » modalities

| Drugs | Onset of effect | Duration of effect | Withdrawal before procedure |
|---|---|---|---|
| Aspirin | 2-4 h | 5 days | **3 - 5 days** |
| Clopidogrel | 2-4 h | 3-10 days | **5 days** |
| Prasugrel | 30 mn | 5-10 days | **7 days** |
| Ticagrelor | 30 mn | 3-4 days | **5 days** |

A patient may be switched from clopidogrel to aspirin if APA can't be discontinued.

# Could we substitute APA ?

No proven efficacious alternative therapy can be proposed as substitute

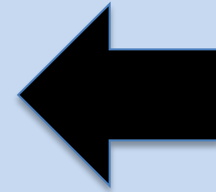
LMWH have been advocated without proof of efficacy

Preventive platelets transfusions are not recommended

# APA and colonoscopy

Diagnostic (with biopsies)
Polypectomy
EMR
ESD

# APA and colonoscopy

**Diagnostic (with biopsies)** 

**Polypectomy**

**EMR**

**ESD**

# Bleeding risk of diagnostic endoscopies with or without biopsies under APA

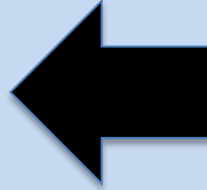
Statements 2011 = 2015

Aspirin or clopidogrel are not considered as factors increasing the bleeding risk of standard forceps biopsies*

We recommend to continue the treatment even in cases of dual APA therapy

# APA and colonoscopy

Diagnostic (with biopsies)

Polypectomy 

EMR

ESD

# Colonoscopy and polypectomy

The overall bleeding risk of colonic polypectomy is very low = 1.14 %

(NHSBCSP : > 167 000 polypectomies)

Severe bleeding: 0.08%

***M Rutter, Endoscopy 2014;46:90-7***

# Risk factors for overall bleeding following polypectomy

- Patient-related risk factors :
  - Age > 65 y, cardio-vascular, chronic renal disease
  - Anticoagulation
- Lesion-related risk factors
  - Polyp size > 1 cm, caecal location
  - Immediate PPB
- Technique-related risk factors
  - Hot snare, use of pure-cut current

# Aspirin and polypectomy

Statements 2011 = 2015

**All recent studies have confirmed that the overall PPB risk is not increased in patients taking low dose aspirin.**

**It is recommended to continue low dose aspirin irrespective of the polyp size or the methods of resection**

# Thienopyridines and polypectomy

**Guideline 2011 :**

When a polypectomy is performed, it is recommended to stop clopidogrel

**Data for statement 2015 :**

- Recent studies have showed that the risk of PPB in patients taking clopidogrel is increased both for overall and delayed bleeding
- No relevant data on new drugs (prasugrel, ticagrelor) are existing regarding the risk of PPB

*Gandhi. Aliment Pharmacol Ther 2013; 37 :947-52*
*Feagins. Clin Gastroenterol hepatol 2013;11:1325-32*

# APA and polypectomy

**Proposals for 2015**

1- Not to use the pure cutting current mode (high evidence/strong recommendation)

2- To stop thienopyridines (moderate evidence, strong recommendation)

3- To continue low dose of aspirin irrespective of polyp size or method of resection. (high evidence/strong recommendation)

4- To use at least one prophylactic endoscopic techniques (high evidence, strong recommendation)

# APA and colonoscopy

Diagnostic (with biopsies)

Polypectomy

EMR

ESD

# APA and EMR
# EMR more at risk than polypectomy ?

The incidence of immediate and delayed post EMR bleeding were 7.5 % and 3.2% respectively which is higher to those after snare standard polypectomy.*

APA use is associated with clinical significant post-EMR bleeding **

*National French survey (SFED) of endoscopic mucosal resection. Endoscopy 2011*
*Burgess. Clin Gastroenterol clin hepatol 2014;12: 651-61*

# EMR and APA

## proposals for 2015

It is recommended :

1. To use a microprocessor controlled current (high evidence/strong reco.)
2. To stop low dose aspirin for wide lesion (> 10 mm) (moderate evidence, weak reco.)
3. To stop thienopyridines (low evidence, weak reco.)
4. To prevently close the EMR defect as much as possible using endoclips (moderate evidence, weak reco.)

# APA and colonoscopy

**Diagnostic (with biopsies)**

**Polypectomy**

**EMR**

**ESD**

# ESD and APA : data

ESD presents a higher procedure bleeding rates compared to EMR irrespective of the location of lesions

Continuous APA and aspirin use presented a significant higher risk of post ESD bleeding

Prophylaxis of post-ESD bleeding is based on systematic coagulation of all visible exposed vessels

# ESD and APA

**proposals for 2015**

It is recommended :

1. To stop low dose aspirin
2. To stop thienopyridines
3. To systematic use coagulation of all visible exposed vessels

# NOAC : what should we know ?

Targets: factor Xa and IIa

RIVAROXABAN: factor Xa

APIXABAN: factor Xa

ELOXABAN: factor Xa

DABIGATRAN: factor IIa

# NOAC : what should we know ?

Fast acting drugs (half-life: 5-17hours, longer with anti IIa)

Good biodisponibility and more predictable pharmacokinetics in comparison to warfarin

➡ blood monitoring possible (PT, aPTT, antiXa , hemoclot) but not required

No antidote available

As effective as warfarin

Same indications as warfarin (VKA) except for valvulopathies

# NOAC : what should we know ?

Pivotal trials and post-market safety data

Rivaroxaban, Dabigatran, Eloxaban : Increased risk of major GI beeding in comparison to warfarin

The effect lasts 12 hours


Connolly SJ, *N Engl J Med* 2009; 361: 1139–1151.
Patel MR, *N Engl J Med* 2011; 365: 883–891.
Granger CB, *N Engl J Med* 2011; 365: 981–992.
Giugliano RP, *N Engl J Med* 2013; 369: 2093–2104.

# NOAC and endoscopy : « proposals »

## Colonoscopy +/- biopsies

Be continued

Or held for one life-time

interval last dose-procedure

Dabigatran, Apixaban, Eloxaban : 10 hours

Rivaroxaban: 20 hours

*Desai J, Gastrointest Endosc 2013; 78: 227-239*

# NOAC and endoscopy : « proposals »

**Polypectomy, ….**

NOAC held for 2-3 life-times

Interval last dose-procedure: 48-72 h

if renal failure (creat clearnace 30-50ml/min) and Dabigatran:

3-5 days

(plus hydration)

*Desai J, Gastrointest Endosc 2013; 78: 227-239*

# NOAC and endoscopy : « proposals »

**Polypectomy, ….**

Reinitiating NOAC following polypectomy, …

Difficult….

immediately (<1cm polyp)

to >3 days (right sided polyp > 2.5cm)

*Desai J, Gastrointest Endosc 2013; 78: 227-239*