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Application of Enoxaparin in Chinese Patients with ACS in Catheter-Lab

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Conflicts of Interest

Speaker's name : Xiaowei, LI, Harbin

- I do not have any potential conflict of interest

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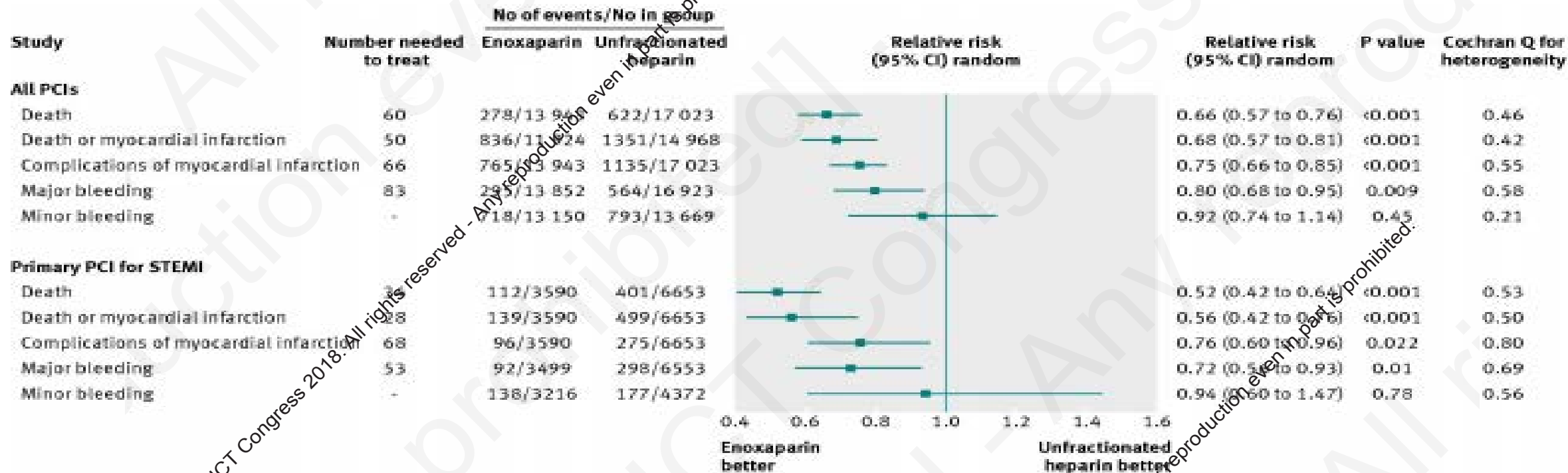
Background

- **Studies have shown that the use of enoxaparin in cardiac catheterization in patients with acute coronary syndrome is safe and effective.**
- **However, those studies were performed in Caucasian population.**

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Meta-analysis enoxaparin vs. UFH in PCI



This is a meta-analysis to determine the efficacy and safety of enoxaparin compared with unfractionated heparin during PCI. 23 trials representing 30 966 patients were identified, including 10 243 patients (33.1%) undergoing primary PCI for STEMI, 8750 (28.2%) undergoing secondary PCI after fibrinolysis, and 11 973 (38.7%) with non-ST elevation ACS or stable patients scheduled for PCI. A total of 13 943 patients (45.0%) received enoxaparin and 17 023 (55.0%) unfractionated heparin.

Enoxaparin was associated with significant reductions in death, the composite of death or myocardial infarction and complications of myocardial infarction, and a reduction in incidence of major Bleeding. In patients who underwent primary PCI, the reduction in death was particularly significant and associated with a reduction in major bleeding.

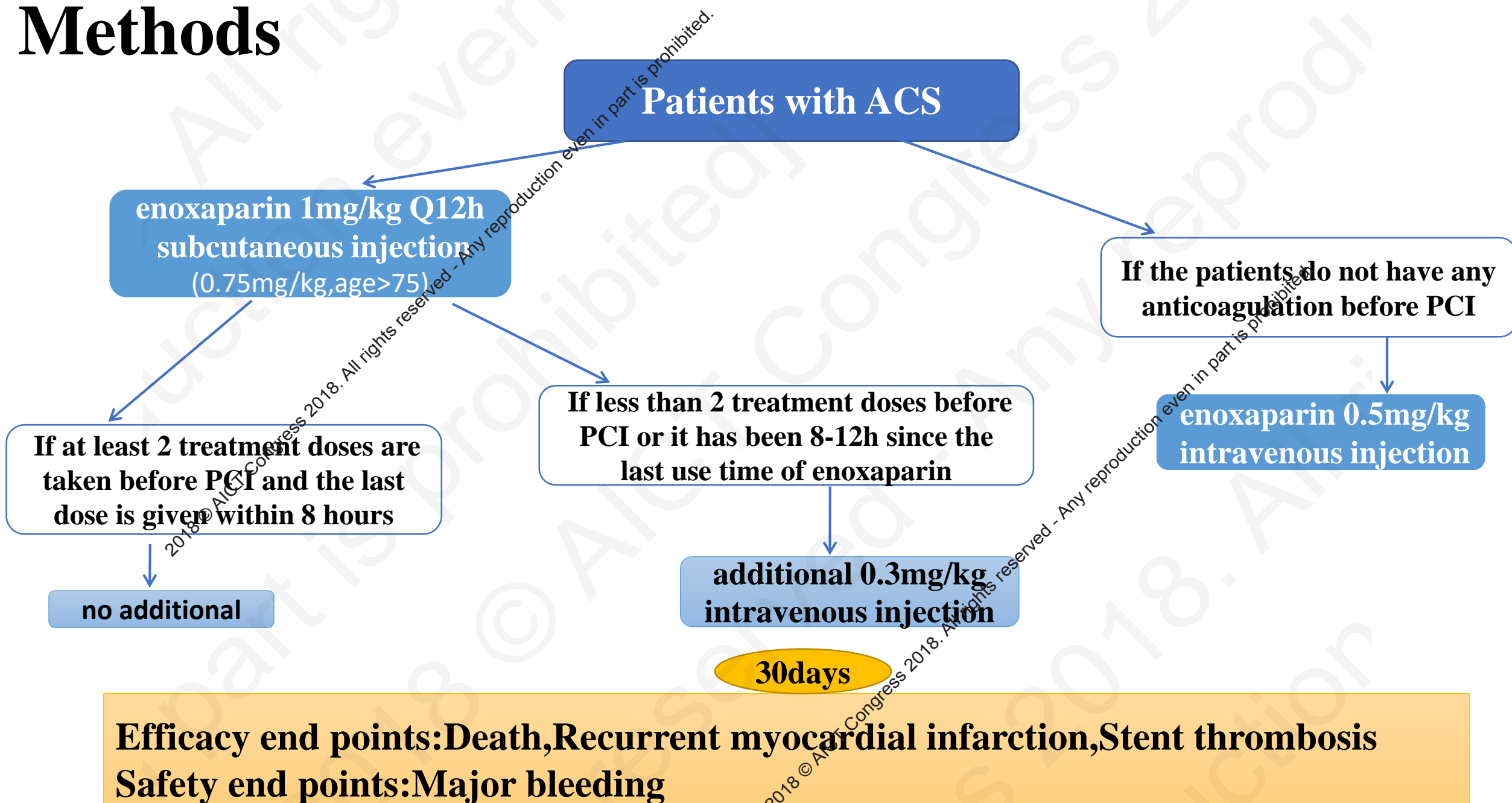
Objectives

- **So far , the data of the application of enoxaparin in Chinese patients is limited**
- **This is the first all-comer study to observe the safety and efficacy of using enoxaparin in Chinese patients with ACS undergoing PCI**

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Methods



Results: A total of 203 Chinese patients with ACS were enrolled

Clinical characteristics:

Variables	Number of Patients(%) (N=203)
Male sex	144(70.94)
Primary PCI	46 (22.66)
Risk factor	
Current smoker	79(38.92)
Hypertension	110(54.19)
Diabetes	61(30.05)
Angiographic manifestations	
Bifurcation lesions	42 (20.69)
CTO lesions	35(17.24)
Left main lesions	11 (5.42)

Results

Clinical characteristics:

Variables	mean \pm SD
Age	61.93 \pm 11.19
Weight(kg)	69.6 \pm 12.57
PT-T(Sec)	12.49 \pm 2.04
PT%	82.16 \pm 17.15
APTT-T(Sec)	29.01 \pm 8.55
LDL-C(mmol/L)	2.83 \pm 0.94
Cr(umol/L)	86.12 \pm 27.11
Ccr(min*1.73m²)	80.01 \pm 28.99

Results

follow-up(30days)

End points	Number of Patients(%) (N=203)
Efficacy end points	
Death	5(2.46)
Recurrent Myocardial Infarction	1 (0.49)
Stent thrombosis	0
Safety end points	
TIMI Major Bleeding	0
TIMI Minor Bleeding	1(0.49)

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Cause of death analysis

5 patients were STEMI, Primary PCI

- Recurrent myocardial infarction: 1 patient (one week after PCI)**
- Heart failure: 3 patients (1-3 days)**
- Cardiac arrest ,gastrointestinal bleeding: 1 patient (10 hours)**

Subgroup analysis

	ATOLL(enoxaparin,n=450)	Our observation(STEMI,n=46)
Death,any cause	4%	10.8%
Major bleeding	5%	0
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	SYNERGY(enoxaparin,n=4993)	Our observation(non-STE ACS,n=157)
Death	3.2%	0
Major bleeding	9.1%	0

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Limitation

- **Small sample size**
- **Observational study**

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Conclusion

- **Similar safety and efficacy is present in Chinese population using same doses of enoxaparin as using in Caucasian population undergoing PCI.**
- **Definitely, enlarged sample studies should be conducted in the future.**

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Thanks!

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