

甘く見ない！ 抗血小板薬とスタチン

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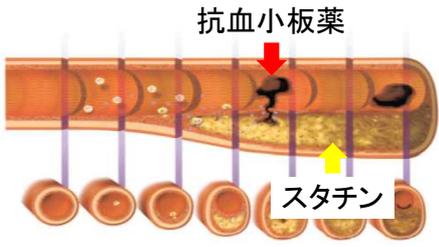
食生活の欧米化 → 急性冠症候群の増加



急性心筋梗塞の年齢調整発生率¹⁾
(/10万人年)

Year	Male (n=16,218)	Female (n=6,111)	Total
1979	~10	~5	~15
1985	~25	~15	~40
1990	~35	~20	~55
1995	~45	~25	~70
2000	~55	~30	~85
2005	~60	~35	~95
2008	~65	~40	~105

MIYAGI-AMI Registry

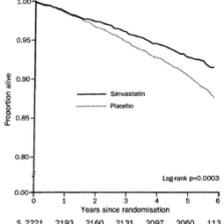


抗血小板薬

スタチン

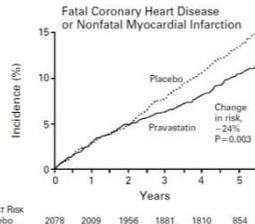
LDLが高い患者 vs LDLが低い患者

LDLが高い患者



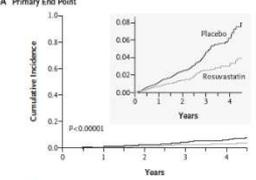
4S 研究
Lancet 1994; 344: 1383-89

LDLが低い患者



CARE 研究
N Engl J Med 1996; 335: 1001-9

さらに JUPITER



スタチンの Pleiotropic Effect !

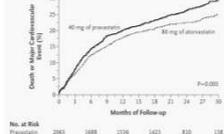
- 炎症を抑制する効果
- 血栓形成を予防する効果
- 血管内皮機能の改善効果
- 抗酸化作用
- プラークの安定化作用
- 左室質量の減少
- 左室線維化の減少

LDL-C < 130mg/dL だが hs-CRP > 2.0mg/L

N Engl J Med 2008; 359: 2195-207

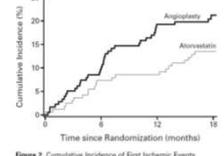
さらに積極的に

ACSには高用量スタチン！



PROVE IT-TIMI22
N Engl J Med 2004; 350: 1495-504

安定狭心症でのスタチン vs. Angioplasty



AVERT
N Engl J Med 1999; 341: 70-6

ガイドラインはどうなっているか？

2013 ACC/AHA Guideline 2016 ESC/EAS Guideline

動脈硬化性心血管疾患 (ASCVD)

- Yes (≤75歳) → 高強度スタチン
- No → LDL-C ≥ 190mg/dL → 高強度スタチン
- LDL-C 70~189mg/dL, 年齢40~75歳
 - 1型・2型糖尿病 → 中強度スタチン
 - No → 高強度スタチン (10年間/リスク7.5%)
 - 10年間のASCVDリスク ≥ 7.5% → 中~高強度スタチン
 - No → スタチンによる動脈硬化性疾患予防効果は明らかではない

CV Risk	Treatment Goals	Class
Very High	LDL-C < 70mg/dL Reduction of at least 50% if the baseline LDL-C is between 70 and 135mg/dL	Class I B
High	LDL-C < 100mg/dL Reduction of at least 50% if the baseline LDL-C is between 100 and 200mg/dL	Class I B
Low or Moderate	LDL-C < 115mg/dL	Class II a C

血小板の話へ

The diagram illustrates the process of platelet aggregation leading to thrombus formation in a blood vessel. It shows a cross-section of a vessel with platelets (small purple dots) clumping together to form a thrombus (a dark mass). Below the vessel, seven numbered circles (1-7) show the progression of platelet aggregation. A yellow arrow points right, and a red arrow points left, indicating the direction of flow or the extent of aggregation. A cartoon character is shown at the bottom right.

The figure shows an angiogram on the left with a red circle highlighting a stenotic area. To the right, a series of diagrams and endoscopic views illustrate the mechanical support provided by a stent. The diagrams show the vessel narrowing, the placement of a stent, and the resulting expansion and support of the vessel wall. The text below reads: **ステントによる血管構造の支持** (Support of blood vessel structure by stent).

金属ステント (Bare Metal Stent)

再狭窄率の減少 DAPTの必要性

Restenosis rate (%)

Group	Restenosis rate (%)
BENESTENT	~32
STRESS	~28

Figure 1. Cumulative Incidence of the Primary End Point in the Three Treatment Groups. (N Engl J Med 1998; 339: 1665-71)

薬剤溶出型ステント (Drug Eluting Stent)

再狭窄率の更なる減少 強すぎた薬の効果

Event-free Survival (%)

Sirolimus-eluting stent group: 91.2%

Standard stent group: 79.6%

SIRIUS
N Engl J Med 2003; 349: 1315-23

Sirolimus-eluting stent coverage

Coverage Grade	Percentage (%)
Incomplete coverage	~10
Complete coverage	~90

Grade 0, Grade 1, Grade 2, Grade 3

Bare-metal stent

J Am Coll Cardiol 2006; 47: 2108-2111

ステント血栓症の恐怖

死亡+心筋梗塞 死亡

A Composite Event

RR: 0.94 (0.83-1.06) for Drug-eluting stent vs Bare-metal stent

RR: 1.20 (1.05-1.37) for Drug-eluting stent vs Bare-metal stent

No. at Risk: Bare-metal stent (12,880, 12,471, 12,146, 9158, 5810, 3304, 8); Drug-eluting stent (5,770, 5,604, 5,456, 3378, 1704, 611, 0)

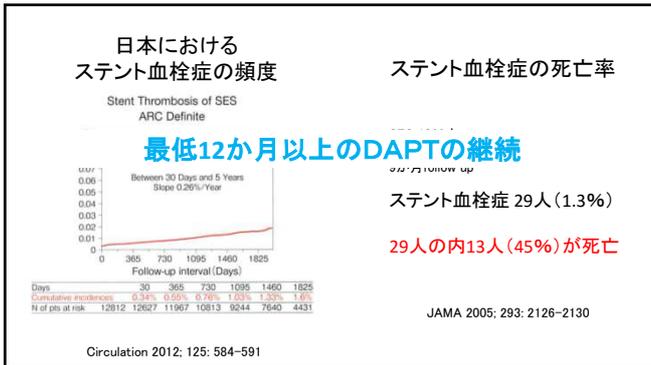
B Death

RR: 1.03 (0.84-1.26) for Drug-eluting stent vs Bare-metal stent

RR: 1.52 (1.11-1.57) for Drug-eluting stent vs Bare-metal stent

No. at Risk: Bare-metal stent (12,880, 12,471, 12,314, 12,228, 9298, 5966, 3339); Drug-eluting stent (5,770, 5,605, 5,561, 5,471, 3434, 1777, 628)

SCAAR
N Engl J Med 2007; 356: 1009-19



当時のTopic

• どんな患者がステント血栓症のhigh riskか？

患者因子	血管造影上の因子
加齢	長いステント
急性冠症候群	多枝病変
糖尿病	ステントの重複
左室駆出率低下	入り口部・分岐部病変
腎不全	小血管

↓

可能な限り一生DAPTの継続がbetter？

