

Case5-2007 : A 53-Year-Old Man with a Prosthetic Aortic Valve and Recent Onset of Fatigue,

Dyspnea, Weight Loss, and Sweats (NEJM 2007; 356:715-725)

【Problem List】(手抜きですが、簡単にまとめてみました)

- #1 発熱, 疲労感, 呼吸困難感, 著明な体重減少, 発汗
- #2 大動脈弁置換後に再発した重症 AR (←聴診及び画像所見より)
- #3 心エコーにて指摘された人工弁の異常, 大動脈基部拡張, Diffuse hypokinesis, 左バルサルバ洞拡張など
- #4 心電図上 ST ↓ in V3~V6
- #5 脾腫 (Septic emboli), リンパ節腫脹 (胸部, 後腹膜部), 気腫, S 状結腸憩室
- #6 両側腎臓 Low density lesions, UTI 所見
- #7 血液検査異常 (汎血球減少, 炎症所見高値, LDH ↑, グロブリン ↑, 電解質異常 etc.)
- #8 聴診にてう音 (+), SpO₂ 95% (RR 18/min, ambient air)
- #9 既往歴 (SAS, 大動脈弁置換後早期の弁破壊→再置換)
- #10 感染症リスク (過去の狩猟, ペット (猫), 口腔内不潔)
- #11 薬物アレルギー (アセトアミノフェン, コデイン)

以上まとめると、大動脈弁置換術を受けた 53 歳男性に生じた全身にわたる Systemic な各症状より、感染性心内膜炎 (IE) が最も疑わしいのは明白であろう。入院約 1 週間前の受診の際に受けた抗菌薬投与の内容も IE を考えてのものだと理解できる。一方、本症例において確認されていない IE の所見としては…

- ① 心エコー上で異常は認めるものの、塞栓源の Vegetation がはっきりと確認されたわけではない
- ② 原因微生物が捕まっていない
- ③ Osler's nodes (-), Janeway's lesions (-), 爪下線状出血 (-)…眼底も診るべきである！

原因微生物に関しては、入院 2 週間前に採られた血液培養はもっと長期的にフォローすべきであった。また、カテーテル刺入部に異常を認めなかったことは、カテーテル関連血流感染 (CRBSI) の可能性を下げる。

さて、このような状態でどう検査し、どう治療するだろうか？

Table 2. Modified Duke Criteria for Endocarditis.*
Major criteria
A positive blood culture for infective endocarditis, as defined by the recovery of a typical microorganism from two separate blood cultures in the absence of a primary focus (viridans streptococci, abiotrophia species, and granulicatella species; <i>Streptococcus bovis</i> , HACEK group, or community-acquired <i>Staphylococcus aureus</i> or enterococcus species); or
A persistently positive blood culture, defined as the recovery of a microorganism consistent with endocarditis from either blood samples obtained more than 12 hours apart or all three or a majority of four or more separate blood samples, with the first and last obtained at least 1 hour apart; or
A positive serologic test for Q fever, with an immunofluorescence assay showing phase 1 IgG antibodies at a titer >1:800
Echocardiographic evidence of endocardial involvement
An oscillating intracardiac mass on the valve or supporting structures, in the path of regurgitant jets, or on implanted material in the absence of an alternative anatomical explanation; or
An abscess; or
New partial dehiscence of prosthetic valve; or
New valvular regurgitation
Minor criteria
Predisposition: predisposing heart condition or intravenous drug use
Fever: temperature ≥38°C (100.4°F)
Vascular phenomena: major arterial emboli, septic pulmonary infarcts, mycotic aneurysm, intracranial hemorrhage, conjunctival hemorrhages, Janeway's lesions
Immunologic phenomena: glomerulonephritis, Osler's nodes, Roth's spots, rheumatoid factor
Microbiologic evidence: a positive blood culture but not meeting a major criterion as noted above, or serologic evidence of an active infection with an organism that can cause infective endocarditis†
Echocardiogram: Findings consistent with infective endocarditis but not meeting a major criterion as noted above

* The diagnosis of infective endocarditis is definite when a microorganism is demonstrated by culture of a specimen from a vegetation, an embolism, or an intracardiac abscess; when active endocarditis is confirmed by histologic examination of the vegetation or intracardiac abscess; or when two major clinical criteria, one major and three minor criteria, or five minor criteria are met. The modified Duke criteria are adapted from Li et al.² HACEK denotes haemophilus species, *Actinobacillus actinomycetemcomitans*, *Cardiobacterium hominis*, *Eikenella corrodens*, and *Kingella kingae*.

† Excluded from this criterion is a single positive blood culture for coagulase-negative staphylococci or other organisms that do not cause endocarditis. Serologic tests for organisms that cause endocarditis include tests for brucella, *Coxiella burnetii*, chlamydia, legionella, and bartonella species.