Γ.Ν.Α. «Ο ΕΥΑΓΓΕΛΙΣΜΟΣ»
Β ΚΑΡΔΙΟΛΟΓΙΚΗ ΚΛΙΝΙΚΗ

Διευθυντής: Α. Σιδέρης

ΕΝΩΣΗ ΕΠΙΣΤΗΜΟΝΙΚΟΥ ΠΡΟΣΩΠΙΚΟΥ ΝΟΣΟΚΟΜΕΙΟΥ «Ο ΕΥΑΓΓΕΛΙΣΜΟΣ»

ΠΑΡΟΥΣΙΑΣΗ ΕΝΔΙΑΦΕΡΟΥΣΑΣ ΠΕΡΙΠΤΩΣΗΣ

«Εμφάνιση πορφυρικού εξανθήματος σε ασθενή με ιστορικό μικρής μεσοκοιλιακής επικοινωνίας»

Λουίζα Λιωνή, Ειδικευόμενη Ιατρός
Εφη Πράππα, Επιμελήτρια Α
Αντώνιος Σιδέρης. Διευθυντής

Β Καρδιολογικής Κλινικής, Γ.Ν.Α. «Ο ΕΥΑΓΓΕΛΙΣΜΟΣ»

- Ασθενής 34 ετών προσήλθε λόγω πορφυρικού εξανθήματος γαστροκνημιών προοδευτικά επιδεινούμενο από μηνός.

- Η παρούσα νόσος άρχεται προ διμήνου με οίδημα και ευαισθησία των ποδοκνημικών.

- Περίπου 15 ημέρες μετά το οίδημα των ποδοκνημικών αναφέρει εξέρυθρο πετεχειώδες εξάνθημα στην περιοχή του κατώτερου τριτημορίου των γαστροκνημιών με προοδευτική επιδείνωση.

- Αναφέρει συνοδά συμπτώματα όπως έντονη νυχτερινή εφίδρωση, ορθόπνοια και ανορεξία, χωρίς να αναφέρει μειωμένη λειτουργική ικανότητα.

- Ο ασθενής επισκέφτηκε το Γ.Ν. Χαλκίδας όπου απο τον εργαστηριακό έλεγχο διαπιστώθηκε αναιμία (Hb=9.1, MCV=84) και αυξημένες τιμές ταχύτητας καθίζησης ερυθρών (ΤΚΕ=120mm). Παραπέμφθηκε σε τριτοβάθμιο νοσοκομείο.

- Εισαγωγή στη ρευματολογική κλινική για πιθανή πορφύρα Henoch-Schönlein.

ΑΤΟΜΙΚΟ ΑΝΑΜΝΗΣΤΙΚΟ

- ✓ Ιστορικό μικρής μεσοκοιλιακής επικοινωνίας.
- ✓ Ιστορικό νεφρολιθίασης.
- ✓ Αυξημένη κατανάλωση αλκοόλης, μέχρι προ 2ετίας.
- ✓ Χρήση ινδικής κάνναβης και ψυχοτρόπων ουσιών, μέχρι προ έτους.
- ✓ Εργασία με βαρέα μέταλλα (κάσσιο), μέχρι το 2008.

ΚΛΙΝΙΚΗ ΕΞΕΤΑΣΗ

- Πάσχουσα όψη.
- Ωχρότητα.
- Δεκατική πυρετική κίνηση.
- Ψηλαφητή πορφύρα σε γαστροκνημία, άκρους πόδες και πέλματα.
- Ύπαρξη μικρών ευκίνητων ανώδυνων λεμφαδένων (δ<1mm), πρόσθιοι τραχηλικοί, μασχαλιαίοι και βουβωνικοί άμφω.
- Φυσιολογικό αναπνευστικό ψιθύρισμα.
- Κοιλιά μαλακή ευπίεστη, με ψηλαφητό ήπαρ 3mm κάτω απο πλευριτικό τόξο, ανώδυνο και με ομαλά όρια και σπλήνα ψηλαφητό στη βαθειά εισπνοή, ανώδυνο.
- ΑΠ=100/80mmHg, ΚΣ=115bpm.
- S1, S2 ταχείς, ρυθμικοί. Τραχύ ολοσυστολικό φύσημα (2ο-3ο μεσοπλεύριο. Ύπαρξη ροίζου αριστερά παραστερνικά.
- Δακτυλική εξέταση αρνητική.

ΕΡΓΑΣΤΗΡΙΑΚΟΣ ΕΛΕΓΧΟΣ

- Hct = 20.5%, Hb=6.9mg/dl
- WBC = 6520/mm³
- TKE = 103 mm
- Cr = 1.58 mg/dl (GFR=65.2ccs/min)
- U = 96 mg/dl
- Na = 138 mmol/l
- K = 4.55 mmol/l
- SGOT = 23 IU/L
- SGPT = 27 IU/L
- LDH = 278 IU/L
- CPK = 17 IU/L
- CK-MB = 3 IU/L
- hsTrop-T = 3.58
- CRP = 6.7
- Φερριτίνη = 359 ng/ml

- ANA : αρνητικά
- AMA : αρνητικά
- ASMA : αρνητικά
- Anti-dsDNA : αρνητικά
- Έλεγχος πρωτεϊνών
  - IgG = 2300 mg/dl (↑)
  - IgA =189 mg/dl
  - IgM = 335 mg/dl (↑)
  - C3= 40.3 mg/dl (↓)
  - C4= 12.9 mg/dl (↓)
  - Rf = 184 IU/ml (↑)
- Ηλεκτροφόρηση λευκωμάτων
  - Albumin = 39.6% (↓)
  - A1 = 8.7%
  - A2 = 12.1%
  - BETA = 9.0%
  - GAMA = 30.6% (↑)

ΕΡΓΑΣΤΗΡΙΑΚΟΣ ΕΛΕΓΧΟΣ

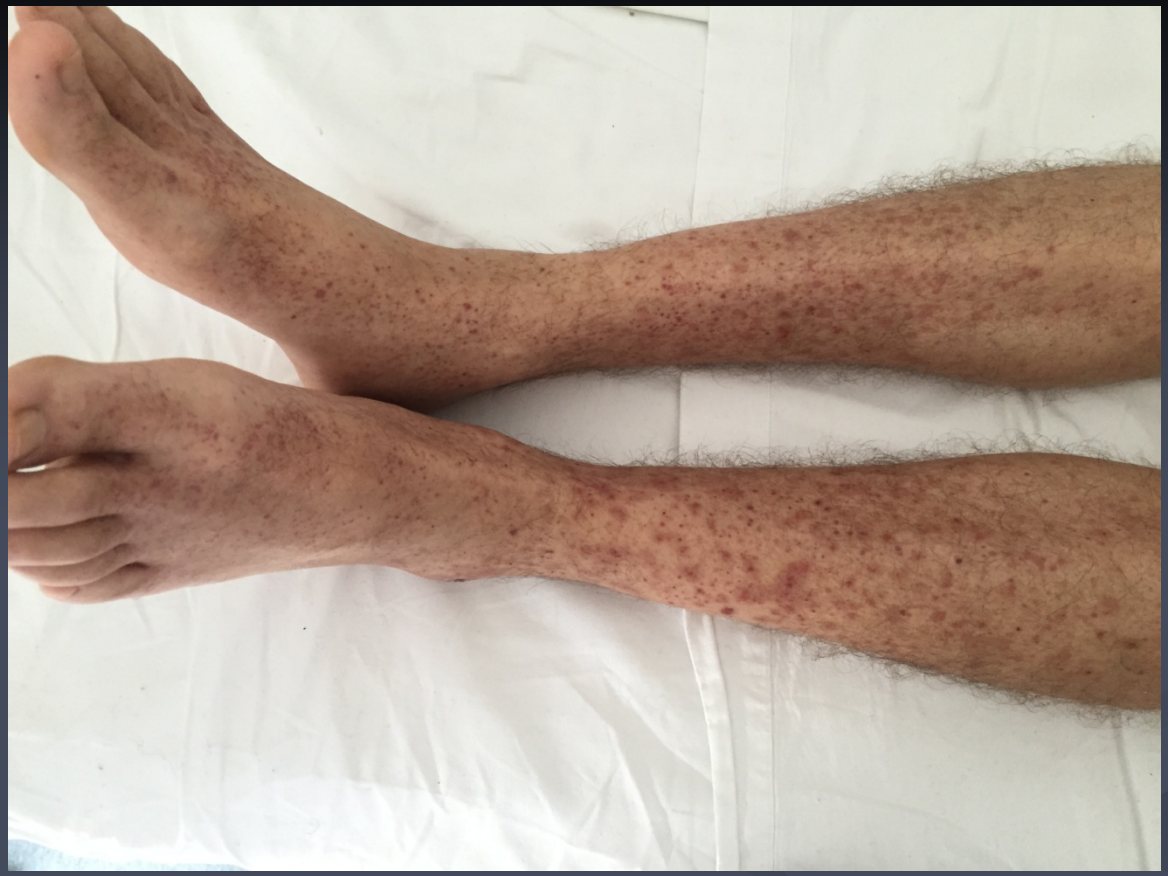
ΜΙΚΡΟΣΚΟΠΙΚΗ ΕΞΕΤΑΣΗ ΟΥΡΩΝ:

χροιά αχυρώδης, όψη ελαφρώς θολή, ειδικό βάρος=1016,PH=5, αιμοσφαιρίνη (5+), λεύκωμα (1+)

Παρουσία 40-60 ερυθρών αιμοσφαιρίων κοπ, 90% δύσμορφα.

Ο ΕΡΓΑΣΤΗΡΙΑΚΟΣ ΕΛΕΓΧΟΣ ΑΝΕΔΕΙΞΕ

- ✓ Οξύ φλεγμονώδες σύνδρομο
- ✓ Ορθόχρωμη ορθοκυτταρική αναιμία
- ✓ Σπειραματονεφρίτιδα

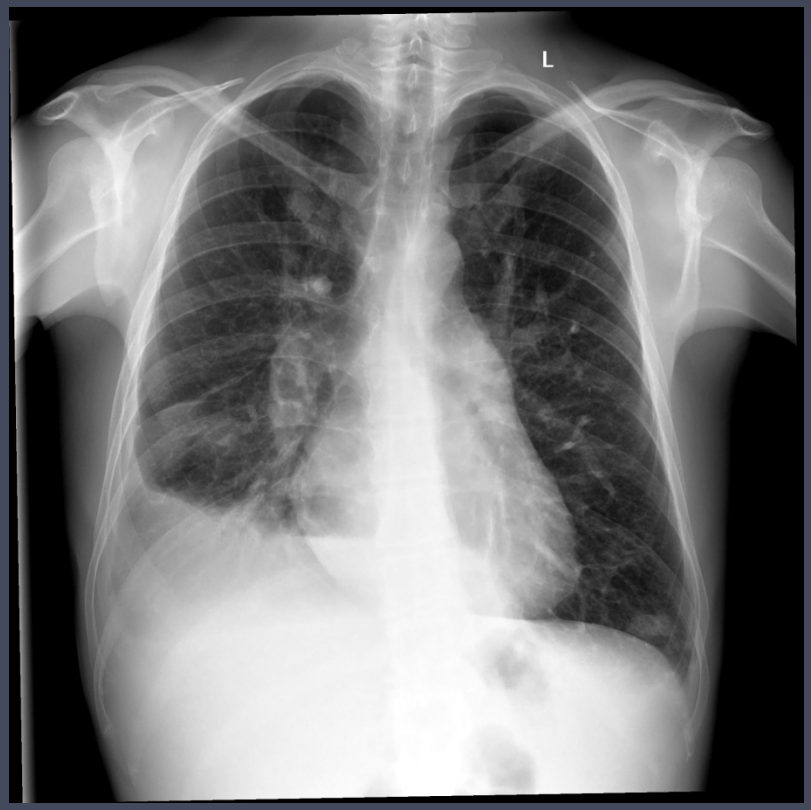


Βιοψία δέρματος : αλλοιώσεις στα πλαίσια «λευκοκυτταροκλαστικής αγγειίτιδας» του δέρματος σε φάση αποδρομής που συνδυάζεται με προέχουσες εναποθέσεις IgA σφαιρίνης.

- ✓ Ελήφθησαν τυφλά αιμοκαλλιέργειες.
- ✓ Τέθηκε υπό αγωγή με πρεδνιζολόνη 50mg ημερησίως.

- Ο ασθενής παρουσίασε αποβολή αίματος από το ορθό.
- Έγινε έλεγχος πεπτικού.
- Η γαστροσκόπηση ανέδειξε έλκος δωδεκαδακτύλου.
- Η κολονοσκόπηση αρνητική.
- Διεκόπη η πρεδνιζολόνη.
- Μεταγγίσθηκε ανεπίπλεκτα με συμπυκνωμένα ερυθρά.

Α/α Θώρακος



CT θώρακος

Εκτεταμένη πυκνοατελεκτασία ΔΚΛ με συνοδό υπεζωκοτική συλλογή.

Μικρότερη υπεζωκοτική συλλογή ΑΡ με μικρή ατελεκτασία.

Μικρό διήθημα στο πρόσθιο τμήμα του ΔΑΛ και οζώδη διηθήματα υπουπεζωκοτικά (τουλάχιστον 3) ΑΡ πνεύμονος (σηπτικά έμβολά; λοίμωξη;)

Μικροί λεμφαδένες υψηλά παρατραχειακά και στο αορτοπνευμονικό παράθυρο.

Μικρή περικαρδιακή συλλογή.

ΑΠΟΤΕΛΕΣΜΑΤΑ ΠΡΩΤΗΣ Κ/Α ΑΙΜΑΤΟΣ

Streptococcus sanguinis

(viridans Streptococcus group)

ΑΝΤΙΒΙΟΓΡΑΜΜΑ : Penicillin G MIC <=0.12S
Ceftriaxone MIC <=0.12S
Ampicillin MIC <=0.25S
Erythromycin MIC <=0.12S
Vancomycin MIC 1 S

ΠΟΙΑ ΘΕΩΡΕΙΤΕ ΤΗΝ ΚΑΤΑΛΛΗΛΟΤΕΡΗ ΕΞΕΤΑΣΗ ΣΤΗ ΣΥΝΕΧΕΙΑ ;

European Heart Journal (2009) **30**, 2369–2413
doi:10.1093/eurheartj/ehp285

ESC GUIDELINES

Guidelines on the prevention, diagnosis, and treatment of infective endocarditis (new version 2009)

The Task Force on the Prevention, Diagnosis, and Treatment of Infective Endocarditis of the European Society of Cardiology (ESC)

Endorsed by the European Society of Clinical Microbiology and Infectious Diseases (ESCMID) and by the International Society of Chemotherapy (ISC) for Infection and Cancer

IE must be suspected in the following situations

1. New regurgitant heart murmur
2. Embolic events of unknown origin
3. Sepsis of unknown origin (especially if associated with IE causative organism)
4. Fever: the most frequent sign of IE.*

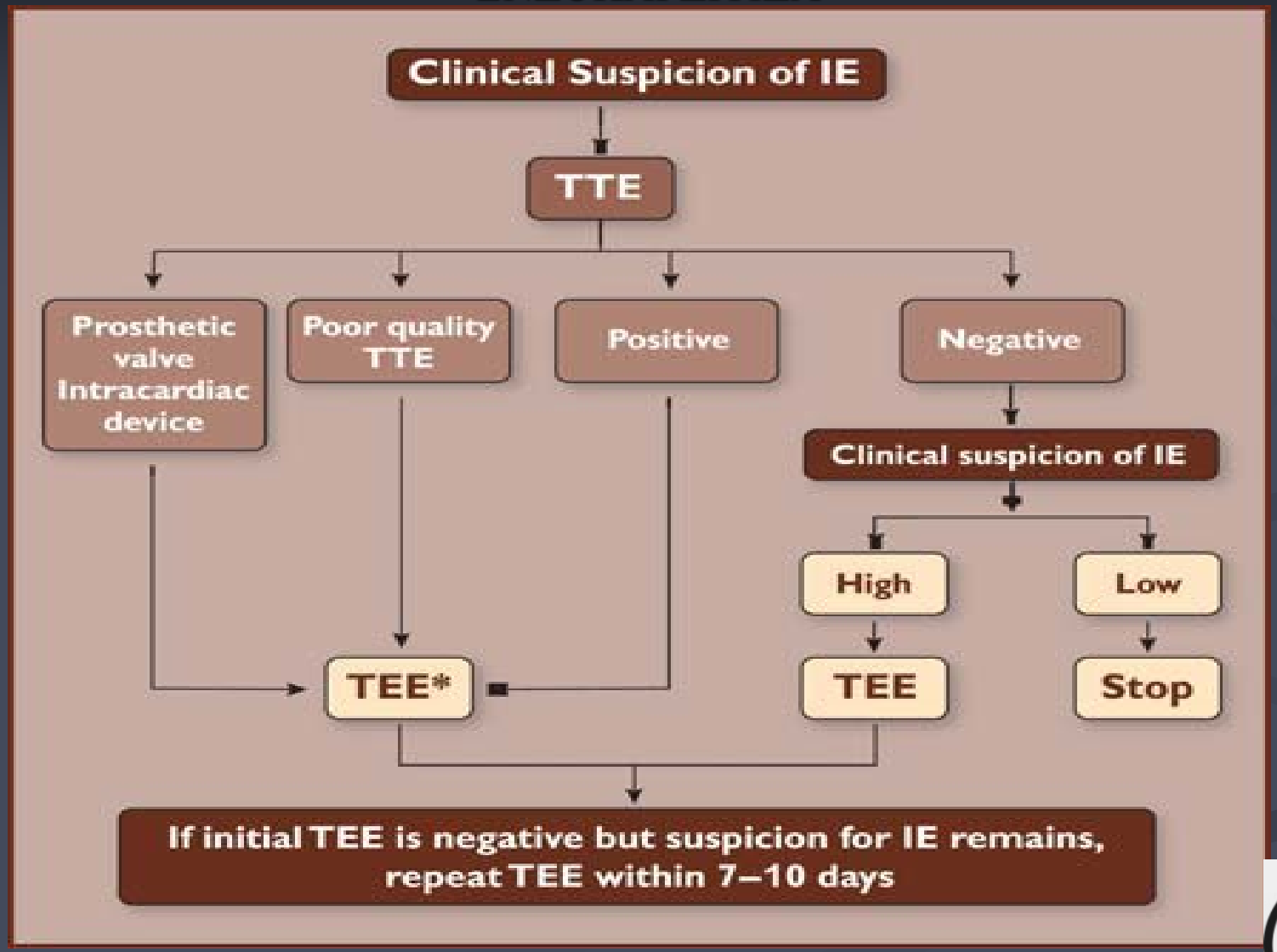
   IE should be suspected if fever is associated with:

   a. Intracardiac prosthetic material (e.g. prosthetic valve, pacemaker, implantable defibrillator, surgical baffle/conduit)
   b. Previous history of IE
   c. Previous valvular or congenital heart disease
   d. Other predisposition for IE (e.g. immunocompromised state, IVDA)
   e. Predisposition and recent intervention with associated bacteraemia
   f. Evidence of congestive heart failure
   g. New conduction disturbance
   h. Positive blood cultures with typical IE causative organism or positive serology for chronic Q fever (microbiological findings may precede cardiac manifestations)
   i. Vascular or immunologic phenomena: embolic event, Roth spots, splinter haemorrhages, Janeway lesions, Osler's nodes
   j. Focal or non-specific neurological symptoms and signs
   k. Evidence of pulmonary embolism/infiltration (right-sided IE)
   l. Peripheral abscesses (renal, splenic, cerebral, vertebral) of unknown cause

ΠΑΘΟΓΟΝΟΙ ΜΙΚΡΟΟΡΓΑΝΣΜΟΙ ΥΠΕΥΘΥΝΟΙ ΓΙΑ ΛΟΙΜΩΔΗ ΕΝΔΟΚΑΡΔΙΤΙΔΑ

- Πεπτοστρεπτόκοκοι (S. sanguis, S. mitis, S. salivarius, S. mutans, Gemella morbillorum, καθώς και της ομάδας 'S. milleri' ή 'S. anginosus' όπως ο S. anginosus, S. intermedius και S. constellatus)
- Στρεπτόκοκκοι ομάδας D (S. bovis, S. equinus)
- Εντερόκοκκοι (E. faecalis, E. faecium, E durans)
- Χρυσίζων σταφυλόκοκκος (S. aureus)
- Κοαγκουλάση αρνητικοί σταφυλόκοκκοι (CNS)
- HACEK (Haemophilus parainfluenzae, H. aphrophilus, H. paraphrophilus, H. influenzae, Actinobacillus actinomycetemcomitans, Cardiobacterium hominis, Eikenella corrodens, Kingella kingae, and K. denitrificans), Brucella και μύκητες.
- Ενδοκυττάρια βακτήρια όπως η Coxiella burnetii, η Bartonella, τα Chlamydia και το Tropheryma whipplei.

Ο ΡΟΛΟΣ ΤΟΥ ΥΠΕΡΗΧΟΓΡΑΦΗΜΑΤΟΣ ΣΤΗ ΛΟΙΜΩΔΗ ΕΝΔΟΚΑΡΔΙΤΙΔΑ



MAJOR CRITERIA

Blood cultures positive for IE:

- Typical microorganisms consistent with IE from two separate blood cultures:
  Viridans streptococci, *Streptococcus bovis*, HACEK group, *Staphylococcus aureus*; or
  Community-acquired enterococci, in the absence of a primary focus;

or

- Microorganisms consistent with IE from persistently positive blood cultures:
  At least two positive blood cultures of blood samples drawn > 12 h apart; or
  All of three or a majority of ≥ 4 separate cultures of blood (with first and last sample drawn at least 1 h apart)

or

- Single positive blood culture for *Coxiella burnetii* or phase I IgG antibody titer > 1 : 800

Evidence of endocardial involvement

- Echocardiography positive for IE
  Vegetation - Abscess - New partial dehiscence of prosthetic valve
- New valvular regurgitation

MINOR CRITERIA

- Predisposition: predisposing heart condition, injection drug use
- Fever: temperature > 38°C
- Vascular phenomena: major arterial emboli, septic pulmonary infarcts, mycotic aneurysm, intracranial haemorrhages, conjunctival haemorrhages, Janeway lesions
- Immunologic phenomena: glomerulonephritis, Osler's nodes, Roth's spots, rheumatoid factor
- Microbiological evidence: positive blood culture but does not meet a major criterion or serological evidence of active infection with organism consistent with IE

Diagnosis of IE is definite in the presence of
2 major criteria, or
1 major and 3 minor criteria, or
5 minor criteria

Diagnosis of IE is possible in the presence of
1 major and 1 minor criteria, or
3 minor criteria

- ✓ Τίθεται η διάγνωση
  λοιμώδους ενδοκαρδίτιδας επί
  μεσοκοιλιακής επικοινωνίας.

- ✓ Μεταφορά στη Β Καρδιολογική κλινική.

ΠΟΙΑ ΘΕΩΡΕΙΤΕ ΤΗΝ ΚΑΤΑΛΛΗΛΟΤΕΡΗ ΑΝΤΙΜΕΤΩΠΙΣΗ;

Antibiotic	Dosage and route	Duration (weeks)	Level of evidence
Strains fully susceptible to penicillin (MIC <0.125 mg/L)			
Standard treatment			
Penicillin G[b]	12–18 million U/day i.v. in 6 doses	4[c]	I B
or			
Amoxicillin[d]	100–200 mg/kg/day i.v. in 4–6 doses	4[c]	I B
or			
Ceftriaxone[e]	2 g/day i.v. or i.m. in 1 dose	4[c]	I B
	Paediatric doses:[f] Penicillin G 200,000 U/kg/day i.v. in 4–6 divided doses. Amoxicillin 300 mg/kg/day i.v. in 4–6 equally divided doses. Ceftriaxone 100 mg/kg/day i.v. or i.m. in 1 dose.		
Two-week treatment[g]			
Penicillin G	12–18 million U/day i.v. in 6 doses	2	I B
or			
Amoxicillin[d]	100–200 mg/kg/day i.v. in 4–6 doses	2	I B
or			
Ceftriaxone[e]	2 g/day i.v. or i.m. in 1 dose	2	I B
with			
Gentamicin[h]	3 mg/kg/day i.v. or i.m. in 1 dose	2	I B
or			
Netilmicin	4–5 mg/kg/day i.v. in 1 dose	2	I B
	Paediatric doses:[f] Penicillin, amoxicillin and ceftriaxone as above. Gentamicin 3 mg/kg/day i.v. or i.m. in 1 dose or in 3 equally divided doses.		
In beta-lactam allergic patients			
Vancomycin[i]	30 mg/kg/day i.v. in 2 doses	4[c]	I C
	Paediatric doses:[f] Vancomycin 40 mg/kg/day i.v. in 2–3 equally divided doses.		
Strains relatively resistant to penicillin (MIC 0.125–2 mg/L)			
Standard treatment			
Penicillin G	24 million U/day i.v. in 6 doses	4[c]	I B
or			
Amoxicillin[d]	200 mg/kg/day i.v. in 4–6 doses	4[c]	I B
with			
Gentamicin[h]	3 mg/kg/day i.v. or i.m. in 1 dose	2	
In beta-lactam allergic patients			
Vancomycin[i]	30 mg/kg/day i.v. in 2 doses	4[c]	I C
	Paediatric doses:[f] As above.		
with			
Gentamicin[h]	3 mg/kg/day i.v. or i.m. in 1 dose	2	

ΑΝΤΙΜΕΤΩΠΙΣΗ

- Έναρξη αγωγής με κεφτριαξόνη και γενταμυκίνη.
- Επαναληπτική CT θώρακος (ίδια ευρήματα) καθώς και CT εγκεφάλου (χωρίς παθολογικά ευρήματα).
- Παρακέντηση πλευριτικής συλλογής (χωρίς εικόνα εμπυήματος).

ΠΟΡΕΙΑ ΑΣΘΕΝΟΥΣ

- ✓ Ο ασθενής λόγω επιδείνωσης νεφρικής λειτουργίας (σπεραματονεφρίτιδα από ΛΕ, τοξικότητα από γενταμυκίνη) παρέμεινε σε μονοθεραπεία με κεφτριαξόνη.
- ✓ Ο ασθενής παρουσίασε αρνητικοποίηση των αιμοκαλλιεργειών.
- ✓ Επανέλεγχος με ΤΤΕ (βελτίωση της εικόνας των εκβλαστήσεων).
- ✓ Συμπλήρωση αντιβιοτικής αγωγής 4 εβδομάδων.
- ✓ Παρέμεινε απύρετος και σταθεροποιήθηκαν οι δείκτες νεφρικής λειτουργίας.

Ο ΑΣΘΕΝΗΣ ΘΑ ΠΡΕΠΕΙ ΝΑ ΟΔΗΓΗΘΕΙ ΣΕ ΧΕΙΡΟΥΡΓΙΚΗ ΑΝΤΙΜΕΤΩΠΙΣΗ ΚΑΙ ΠΟΤΕ;

Recommendations: Indications for surgery	Timing*	Class[a]	Level[b]
A - HEART FAILURE			
Aortic or mitral IE with severe acute regurgitation or valve obstruction causing refractory pulmonary oedema or cardiogenic shock	Emergency	I	B
Aortic or mitral IE with fistula into a cardiac chamber or pericardium causing refractory pulmonary oedema or shock	Emergency	I	B
Aortic or mitral IE with severe acute regurgitation or valve obstruction and persisting heart failure or echocardiographic signs of poor haemodynamic tolerance (early mitral closure or pulmonary hypertension)	Urgent	I	B
Aortic or mitral IE with severe regurgitation and no HF	Elective	IIa	B
B - UNCONTROLLED INFECTION			
Locally uncontrolled infection (abscess, false aneurysm, fistula, enlarging vegetation)	Urgent	I	B
Persisting fever and positive blood cultures > 7–10 days	Urgent	I	B
Infection caused by fungi or multiresistant organisms	Urgent/elective	I	B
C - PREVENTION OF EMBOLISM			
Aortic or mitral IE with large vegetations (> 10 mm) following one or more embolic episodes despite appropriate antibiotic therapy	Urgent	I	B
Aortic or mitral IE with large vegetations (> 10 mm) and other predictors of complicated course (heart failure, persistent infection, abscess)	Urgent	I	C
Isolated very large vegetations (> 15 mm)[#]	Urgent	IIb	C

In summary, right-sided IE is most frequently observed in IVDAs and CHD. Diagnostic features include respiratory symptoms and fever. TTE is of major value in these patients. Despite relatively low in-hospital mortality, right-sided IE has a high risk of recurrence in IVDAs and a conservative approach to surgery is recommended in this group.

Part 4. Infective endocarditis in congenital heart disease

The population of children and adults with CHD is expanding, and this is the major substrate for IE in younger patients. However, our knowledge of IE in this setting is limited since systematic studies are few and often retrospective, and selection bias associated with studies from highly specialized centres hampers universal application.

The reported incidence of IE in CHD is 15–140 times higher than that in the general population (the highest estimate originating from a highly specialized unit).[361,362] The reported proportion of CHD in patients with IE varies, probably due to selection bias, between 2 and 18%,[363–365] with a consistent minor male dominance.[58,362,366]

Treatment of IE in CHD follows general principles. Cardiac surgery is appropriate when medical therapy fails, when serious haemodynamic complications arise, and when there is a high risk of devastating septic embolism.

IE in CHD carries a mortality of 4–10%.[58,62,362,366] This better prognosis in comparison with acquired heart disease may reflect the higher proportion of right heart IE.

Primary prevention is vital.[368] The importance of good oral, dental, and skin hygiene has already been emphasized, and antibiotic prophylaxis is indicated in high-risk groups as defined in Section E. However, there is also an educational problem, and awareness of the risk of IE and need for preventive measures are not satisfactorily spread in the population with CHD.[369] Cosmetic piercing, at least involving the tongue and mucous membranes, should be discouraged in this group.

Surgical repair of CHD often reduces the risk of IE, provided there is no residual lesion.[364,370] However, in other cases when artificial valve substitutes are implanted, the procedure may increase the overall risk of IE. There are no scientific data justifying cardiac surgery or percutaneous interventions (e.g. closure of a patent ductus arteriosus) with the sole purpose of eliminating the risk of IE.[371] Cardiac repair as a secondary preventive measure to reduce the risk of recurrent IE has been described but not systematically studied.

Indications for Intervention in Ventricular Septal Defect

	Class[a]	Level[b]
• Patients with symptoms that can be attributed to L-R shunting through the (residual) VSD and who have no severe pulmonary vascular disease (see below) should undergo surgical VSD closure.	I	C
• Asymptomatic patients with evidence of LV volume overload attributable to the VSD should undergo surgical VSD closure.	I	C
• Patients with a history of IE should be considered for surgical VSD closure.	IIa	C
• Patients with VSD associated prolapse of an aortic valve cusp causing progressive AR should be considered for surgery.	IIa	C
• Patients with VSD and PAH should be considered for surgery when there is still net L-R shunt (Qp:Qs > 1.5) present and PAP or PVR are < 2/3 of systemic values (baseline or when challenged wich vasodilators, preferably nitric oxide, or after targered PAH therapy).	IIa	C
• Surgery must be avoided in Eisenmerger VSD and when exercise induced desaturation is present.	III	C
• If the VSD is small, not subarterial, does not lead to LV volume overload or pulmonary hypertension and there is no history of IE, surgery should be avoided.	III	C

AR = aortic regurgitation; IE = infective endocarditis; LV = left ventricle; PAH = pulmonary arterial hypertension; L-R shunt = left-to-right shunt; PVR = pulmonary vascular resistance; Qp:Qs = pulmonary to systemic flow ratio; VSD = ventricular septal defect.

European Heart Journal 2010; doi:10.1093/eurhearj/ehq249

- Εμβολικά φαινόμενα παρουσιάζονται σε ποσοστό 20-50% επί ΛΕ.
- Νέα επεισόδια μετά την έναρξη αντιβιοτικής αγωγής συμβαίνουν σε ποσοστό 6-21% (με μεγαλύτερο κίνδυνο την πρώτη εβδομάδα έναρξης θεραπείας).
- Η περιεγχειρητική θνησιμότητα ανέρχεται στο 5-15% (αγγίζει το 15% την πρώτη εβδομάδα έναρξης της αντιβιοτικής αγωγής).
- Κύρια αίτια περιεγχειρητικής θνησιμότητας η πολυοργανική ανεπάρκεια, η καρδιακή ανεπάρκεια, η σήψη, η καταστάσεις υπερπηκτικότητας και το αγγειακό εγκεφαλικό επεισόδιο.
- Η αντιμετώπιση εξατομικεύεται

Ha SE, Ban TH, Jung SM, Bae KN, Chung BH, Park CW, Choi BS.

Henoch-Schönlein purpura secondary to infective endocarditis in a patient with pulmonary valve stenosis and a ventricular septal defect.

Korean J Intern Med. 2015 May;30(3):406-10.

Lee KY, Yi JE, Moon D, Jung HO, Youn HJ, Lim J, Lee JE.

Isolated right-sided mural infective endocarditis in a 32-year-old woman with muscular ventricular septal defect.

Abstract

Bacterial endocarditis secondary to jet streams from a congenital heart defect without valvular involvement is very rare, especially in adult patients. We report an unusual case of a 32-year-old woman with a previously known unrepaired ventricular septal defect (VSD) who presented with intermittent fever and chills after dental treatment and was diagnosed with isolated right-sided mural infective endocarditis associated with a muscular-type VSD. Echocardiography revealed a low echogenic, mobile vegetation along the right ventricular outflow tract (RVOT) free wall and a small-sized muscular-type VSD. The patient's blood culture grew Streptococcus viridians. After 3 weeks of antibiotic treatment, VSD patch closure was performed, and the vegetation on the RVOT endomyocardium was removed.

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Η νοσοκομειακή θνητότητα στην ΛΕ ανέρχεται στο 9,6-26%
Σε ΛΕ επί εδάφους συγγενούς καρδιοπάθειας 4-10%
Κακοί προγνωστικοί παράγοντες έκβασης ασθενών με ΛΕ αναφέρονται οι παρακάτω:

Patient characteristics
- Older age
- Prosthetic valve IE
- Insulin-dependent diabetes mellitus
- Comorbidity (e.g. frailty, previous cardiovascular, renal or pulmonary disease)

Presence of complications of IE
- Heart failure
- Renal failure
- Stroke
- Septic shock
- Periannular complications

Microorganism
- *S. aureus*
- Fungi
- Gram-negative bacilli

Echocardiographic findings
- Periannular complications
- Severe left-sided valve regurgitation
- Low left ventricular ejection fraction
- Pulmonary hypertension
- Large vegetations
- Severe prosthetic dysfunction
- Premature mitral valve closure and other signs of elevated diastolic pressures

Recommendations: prophylaxis	Class[a]	Level[b]
Antibiotic prophylaxis should only be considered for patients at highest risk of IE 1. Patients with a prosthetic valve or a prosthetic material used for cardiac valve repair 2. Patients with previous IE 3. Patients with congenital heart disease a. cyanotic congenital heart disease, without surgical repair, or with residual defects, palliative shunts or conduits b. congenital heart disease with complete repair with prosthetic material whether placed by surgery or by percutaneous technique, up to 6 months after the procedure c. when a residual defect persists at the site of implantation of a prosthetic material or device by cardiac surgery or percutaneous technique	IIa	C
Antibiotic prophylaxis is no longer recommended in other forms of valvular or congenital heart disease	III	C

Recommendations: prophylaxis	Class[a]	Level[b]
A - Dental procedures: **Antibiotic prophylaxis should only be considered for** dental procedures requiring manipulation of the gingival or periapical region of the teeth or perforation of the oral mucosa	IIa	C
Antibiotic prophylaxis is not recommended for local anaesthetic injections in non-infected tissue, removal of sutures, dental X-rays, placement or adjustment of removable prosthodontic or orthodontic appliances or braces. Prophylaxis is also not recommended following the shedding of deciduous teeth or trauma to the lips and oral mucosa	III	C
B - Respiratory tract procedures*: **Antibiotic prophylaxis is not recommended for respiratory tract procedures, including** bronchoscopy or laryngoscopy, transnasal or endotracheal intubation	III	C
C - Gastrointestinal or urogenital procedures*: **Antibiotic prophylaxis is not recommended for** gastroscopy, colonoscopy, cystoscopy or transoesophageal echocardiography	III	C
D - Skin and soft tissue*: **Antibiotic prophylaxis is not recommended for any procedure**	III	C

Al-Senaidi KS, Abdelmogheth AA, Balkhair AA.

Complicated subacute bacterial endocarditis in a patient with ventricular septal defect.

Abstract

Infective endocarditis (IE) is an uncommon but life-threatening infection. Despite advances in management, it still causes high morbidity and mortality. We report the case of an 8-year-old girl who presented with a prolonged fever of 2.5 months duration and a history of a small perimembranousventricular septal defect. She was diagnosed with subacute bacterial endocarditis secondary to Streptococcus mutans. The patient developed a septic pulmonary embolism; however, with the use of appropriate antimicrobial therapy, she made an uneventful recovery. Clinicians should have a high index of suspicion for IE as the possible cause of a prolonged fever, especially in the presence of congenital heart disease (CHD). Currently, IE prophylaxis is not indicated for unrepaired acyanotic CHD. Nevertheless, with the new changes in the guidelines, more prospective studies are needed to investigate the incidence of IE in such lesions, before long-term conclusions can be drawn.

Sultan Qaboos Univ Med J. 2014 Feb;14(1):e130-3.

Baek JE, Park SJ, Woo SB, Choi JY, Jung JW, Kim NK.

Changes in patient characteristics of infective endocarditis with congenital heart disease: 25 years experience in a single institution.

BACKGROUND AND OBJECTIVES: The profile of infective endocarditis (IE) has changed and is now showing an increasing prevalence of IE among congenital heart disease (CHD) patients. We studied the change of clinical profiles of IE over the past 25 years in patients with CHD at a single institution.

SUBJECTS AND METHODS: We reviewed medical records retrospectively for 325 patients diagnosed with IE between January 1, 1987, and March 31, 2012. We analyzed and compared the differences in patient characteristics and outcomes between 1987-2000 (group A) and 2001-2012 (group B).

RESULTS: Over the 25-year period, 93 cases of IE in CHD patients were diagnosed (59 cases in group A and 34 cases in group B). Ventricular septal defect was the most common underlying cardiac disease observed during the entire period. The most common causative pathogen was Streptococcus in both groups. Group A contained 16 cases (27.1%) that had undergone cardiac surgery, whereas this number was 19 (55.8%) in group B. The number of patients who had undergone palliative care or surgery using prosthetic materials was higher among group B patients ($p<0.001$). Surgical procedures due to uncontrolled infection were performed in three cases in group A and 10 cases in group B.

CONCLUSION: Infective endocarditis and CHD show a close correlation, and the profile of IE patients can change in line with an increase in the survival rate of patients with complex CHD and the improvement of surgical techniques. Ongoing reassessment and the systematic management of these patients is crucial in the prevention and treatment of IE.

Korean Circ J. 2014 Jan;44(1):37-41.

- Είναι ενδιαφέρον να τονίσουμε ότι ο συγκεκριμένος ασθενής ανέφερε εξαγωγή οδόντος προ 4μήνου. Επίσης είχε πολύ κακή στοματική υγιεινή.

- Παρόλο που στον συγκεκριμένο ασθενή η προφύλαξη δεν είχε ένδειξη σύμφωνα με τις Ευρωπαϊκές οδηγίες θα πρέπει να τονιστεί ο ρόλος της καλής στοματικής υγιεινής και τακτικής οδοντιατρικής παρακολούθησης

- *Σίγουρο είναι ότι πλέον ο συγκεκριμένος ασθενής χρειάζεται προφύλαξη για τυχόν οδοντιατρική επέμβαση!!!*

ΕΥΧΑΡΙΣΤΩ ΠΟΛΥ ΓΙΑ ΤΗΝ ΠΡΟΣΟΧΗ ΣΑΣ