9th International Symposium

on Modern Concepts in Endocarditis and Cardiovascular Infections

Program

14 - 17 June 2007 Heidelberg, Germany

www.cardiocore.com · www.endocarditis.org

Organised in collaboration with the
ESC Working Group on Valvular Heart Disease

Under the auspices of ISC

Welcome

ISCVID was founded in the late 1980s to bring scientific awareness to endocarditis, a disease of high morbidity and mortality despite advances in antimicrobial therapy, and an enhanced ability to diagnose and treat complications. In the early 1990s this society began holding biennial scientific sessions to bring together the community of endocarditis investigators.

The meeting will, through scientific presentations, expert lectures, discussions and symposia, explore infections of the cardiovascular system and their treatment, including a focus on the latest scientific knowledge in the management of device infections and complex bacteraemia. It is an excellent opportunity for specialists from infectious diseases, cardiologists, microbiologists, pathologists and cardiovascular surgeons to collaborate on basic and clinical research. It is expected to include a unique interface of scientific investigators, industry representatives actively involved in developing products in this area, and sponsoring societies involved in research and guideline development.

The programme is CME accredited and is designed to encourage delegate participation and stimulate discussion on current and emerging therapies for the treatment of cardiovascular infections.

Christoph K. Naber
Dieter Horstkotte
Georg Peters
Raimund Erbel
For the 9th ISCVID Organizing Committee

Obituary

The 9th International Symposium on Modern Concepts in Endocarditis and Cardiovascular Infections will be held in memoriam of **Elias Abrutyn** who sadly and unexpectedly passed away on February 22, 2007

Elias Abrutyn was one of the great men in medicine. To many of us he was a revered colleague, mentor, and a true friend. His underlying selflessness was a breath of fresh air in a world that is all to often caught up in self promotion. His thoughtfulness and leadership was apparent whenever he entered a room. This is truly a loss for all of us. Please keep his family in your thoughts and prayers.

Program

Thursday, June 14th

1.00-4.45 p.m. Meeting of the International Collaboration on Endocarditis

6.00 p.m. **Get Together**

Friday, June 15th

8.00-8.30 a.m. **Opening**

8.30-9.00 a.m. **A Tribute to Elias Abrutyn**
C.H. Cabell (Durham, USA) &
A.W. Karchmer (Boston, USA) / ISCVID

9.00-10.00 a.m. **It is all in the numbers – databases and registries**
Chairs:
C. Gohlke-Baerwolf (Bad Krozingen, Germany)
L. Olaison (Gothenburg, Sweden)

- 10 years of infective endocarditis in Germany – the ZEN and ALKK registries
  M. Block (Munich, Germany)
- Evolution of IE in Russia: results of 50-years supervision
  A. Demin (Novosibirsk, Russia)
- The essence of ICE
  C.H. Cabell (Durham, USA)

Coffee Break

10.30-12.00 a.m. **Diagnosis: is it endocardits?**
Chairs:
R. Erbel (Essen, Germany)
D. Durack (Franklin Lakes, USA)

- New diagnostic methods: PCR and Serology
  R. Watkin (Birmingham, UK)
- Transesophageal echocardiography in infective endocarditis: diagnostic challenges
  B. Khandheria (Rochester, USA)

Debate: the Duke Criteria for Infective Endocarditis - an important tool in the clinical setting?

Pro:
G. Habib (Marseille, France)

Contra:
B.D. Prendergast (Manchester, UK)

Lunch Break

1.00-2.30 p.m. **Management (I): Device and Pacemaker Infections**

Chairs:
K. Werdan (Halle, Germany)
H. Giamarellou (Athens, Greece)

- Talking microbes: communication and quorum sensing in biofilms
  M. Herrmann (Homburg/Saar, Germany)
- How to treat biofilm infections?
  D. Lew (Geneva, Switzerland)
- Antiinfective coating of catheters and cardiovascular implants
  R.O. Darouiche (Houston, USA)
- Cardiac device infections – getting to the heart of matter
  L. Baddour (Rochester, USA)

Coffee Break

3.00-4.45 p.m. **Microorganisms (I): Staphylococci**

Chairs:
G. Peters (Muenster, Germany)
J.M. Miró (Barcelona, Spain)

- Role of virulence factors of S. aureus in infective endocarditis
  A.S. Bayer (Torrance, USA)
- Small colony variants
  C. von Eiff (Muenster, Germany)
- S. lugdunensis – not an average kind
  K.L. Frank (Rochester, USA)
- The thread: MRSA and cMRSA
  I.M. Gould (Aberdeen, UK)

Saturday, June 16th

8.30-10.00 a.m. **Paul Ehrlich Memorial Lecture – Drugs**

(Supported by the Working Group on Infective Endocarditis of the Paul Ehrlich Society)

Chairs:
J. Niebel (Wiesbaden, Germany)
P. Kern (Ulm, Germany)

- Why to care about PK/PD
  F. Scaglione (Milano, Italy)
- The sense and non-sense of combination therapy in IE
  S. Chambers (Christchurch, New Zealand)
- New guitars in town
  R.C. Moellering Jr. (Boston, USA)
- The future: understandig the enemy
  V. Fowler (Durham, USA)

Coffee Break

10.30-12.00 a.m. **Clinical Consensus Conference on Gram positive Bloodstream Infections**

(Organized by the ISC Working Group on Infective Endocarditis and Bloodstream Infections as part of the ISC Disease Management Series)

Chairs:
C.K. Naber (Essen, Germany)
E. Giamarellos (Athens, Greece)

Panel:
L. Baddour; H. Giamarellou; I. M. Gould; M. Herrmann; B. Hoen; A.W. Karchmer; Y. Kobayashi; R.S. Kozlov; D. Lew; K. Metodiev; J.M. Miró; R.C. Moellering Jr.; G. Peters; E. Rubinstein;

State of the art: clinical importance of microbiology findings
H. Seifert (Cologne, Germany)

State of the art: patients at risk
P. Moreillon (Lausanne, Switzerland)

State of the art: management
R. Corey (Durham, USA)

Lunch Break

1.00-2.30 p.m. **Microorganisms (II): Streptococci, Enterococci and others**

Chairs:
B. Hoen (Besancon, France)
R. Utili (Naples, Italy)

- Increasing resistance in enterococci and streptococci
  C. Woods (Durham, USA)
- Non-viridans, non-bovis strep in infective endocarditis
  B. Hoen (Besancon, France)
- Fungal endocarditis
  E. Rubinstein (Winnipeg, Canada)

Young Investigator Awards: Announcement of the Winners

Coffee Break

3.00-4.45 p.m. **Management (II): Surgery**

Chairs:
M. Lengyel (Budapest, Hungary)
C.A. Mestres (Barcelona, Spain)

- The optimal timing of surgery
  F. Delahaye (Lyon, France)
- The optimal surgery
  R. Leyh (Wuerzburg, Germany)
- Call for new criteria for surgery in active infective endocarditis
  H. Siniawski (Berlin, Germany)

Case presentations

7.00 p.m. **Gala Dinner Heidelberg Castle**

Sunday, June 17th

8.30-10.00 a.m. **Management (II): Special Issues and Ambulatory Therapy**

Chairs:
H. Katus (Heidelberg, Germany)
J. Stepinska (Warsaw, Poland)

- ASA as supportive therapy in infective endocarditis?
  K.-L. Chan (Ottawa, Canada)
- Infective endocarditis in children and adults with congenital heart disease
  A.A. Schmaltz (Essen, Germany)
- Ambulatory treatment
  U. Flueckiger (Basel, Switzerland)
- Prognosis in patients after good in-hospital outcome
  L. Perez de Isla (Madrid, Spain)

Coffee Break

10.30-12.00 a.m. **Debate: Prophylaxis – where do we go?**

Chairs:
K.A. Taubert (Dallas, USA)
J.T.M. van der Meer (Amsterdam, Netherlands)

Panel:
B. Al-Nawas; C. Gohlke-Baerwolf, G. Habib; C. Leport; C.K. Naber; J. Niebel; E. Rubinstein; A.A. Schmaltz; C. Selton-Suty

- Bacteremia and dental procedures
  P. Lockhart (Charlotte, USA)
- French Guidelines
  X. Duval (Paris, France)
- British Guidelines
  G. Roberts (London, UK)
- AHA Guidelines
  L. Baddour (Rochester, USA)

12.00 noon **Closing Remarks**

Organizing committee

Christoph K. Naber; Essen; Germany
Dieter Horstkotte; Bad Oeynhausen; Germany
Georg Peters; Muenster; Germany
Raimund Erbel; Essen; Germany
Joerg Niebel; Essen; Germany
Christopher H. Cabell; Durham; USA
Ralph Corey; Durham; USA
Carlos A. Mestres; Barcelona; Spain
José Miró; Barcelona; Spain
Christine Selton-Suty; Nancy; France
Walter R. Wilson; Rochester; USA

ISCVID Council

Adolf W. Karchmer; Boston; USA
Elias Abrutyn †; Philadelphia; USA
Christopher H. Cabell; Durham; USA
Ralph Corey; Durham; USA
David Durack; Franklin Lakes; USA
Bruno Hoen; Besancon; France
Jan T.M. van der Meer; Amsterdam; Netherlands
Carlos Mestres; Barcelona; Spain
José Miró; Barcelona; Spain
Philippe Moreillon; Lausanne; Switzerland
Ethan Rubinstein; Winnipeg; Canada
Walter R. Wilson; Rochester; USA

Faculty

Bilal Al-Nawas; Mainz; Germany
Larry Baddour; Rochester; USA
Arnold S. Bayer; Torrance; USA
Michael Block; Munich; Germany
Christopher H. Cabell; Durham; USA
Steven Chambers; Christchurch; New Zealand
Kwan-Leung Chan; Ottawa; Canada
Ralph Corey; Durham; USA
Rabih O. Darouiche; Houston; USA
Francois Delahaye; Lyon; France
Alexander Demin; Novosibirsk; Russia
David Durack; Franklin Lakes; USA
Xavier Duval; Paris; France
Raimund Erbel; Essen; Germany
Ursula Flueckiger; Basel; Switzerland
Vance Fowler; Durham; USA
Kristi L. Frank; Rochester; USA
Helen Giamarellou; Athens; Greece
Evangelos Giamarellos; Athens; Greece
Christa Gohlke-Baerwolf; Bad Krozingen; Germany
Ian M. Gould; Aberdeen; UK
Gilbert Habib; Marseille; France
Matthias Herrmann; Homburg / Saar; Germany
Bruno Hoen; Besancon; France
Dieter Horstkotte; Bad Oeynhausen; Germany
Adolf W. Karchmer; Boston; USA
Hugo Katus; Heidelberg; Germany
Peter Kern; Ulm; Germany
Bijoy Khanderia; Rochester; USA
Yoshihiro Kobayashi; Tokyo; Japan
Roman S. Kozlov; Smolensk; Russia
Maria Lengyel; Budapest; Hungary
Catherine Leport; Paris; France
Daniel Lew; Geneva; Switzerland
Rainer Leyh; Wuerzburg; Germany
Peter Lockhart; Charlotte; USA
Carlos A. Mestres; Barcelona; Spain
Krassimir Metodiev; Varna; Bulgaria
José M. Miró; Barcelona; Spain
Robert C. Moellering Jr.; Boston; USA
Philippe Moreillon; Lausanne; Switzerland
Christoph K. Naber; Essen; Germany
Kurt G. Naber; Straubing; Germany
Joerg Niebel; Wiesbaden; Germany
Lars Olaison; Gothenburg; Sweden
Leopoldo Perez de Isla; Madrid; Spain
Georg Peters; Muenster; Germany
Bernard D. Prendergast; Manchester; UK
Graham Roberts; London; UK
Ethan Rubinstein; Winnipeg; Canada
Francesco Scaglione; Milano; Italy
Achim A. Schmaltz; Essen; Germany
Harald Seifert; Cologne; Germany
Christine Selton-Suty; Nancy; France
Hendryk Siniawski; Berlin; Germany
Janina Stepinska; Warsaw; Poland
Kathryn A. Taubert; Dallas; USA
Riccardo Utili; Naples; Italy
Jan T.M. van der Meer; Amsterdam; Netherlands
Christof von Eiff; Muenster; Germany
Richard Watkin; Birmingham; UK
Karl Werdan; Halle; Germany
Walter R. Wilson; Rochester; USA
Christopher Woods; Durham; USA

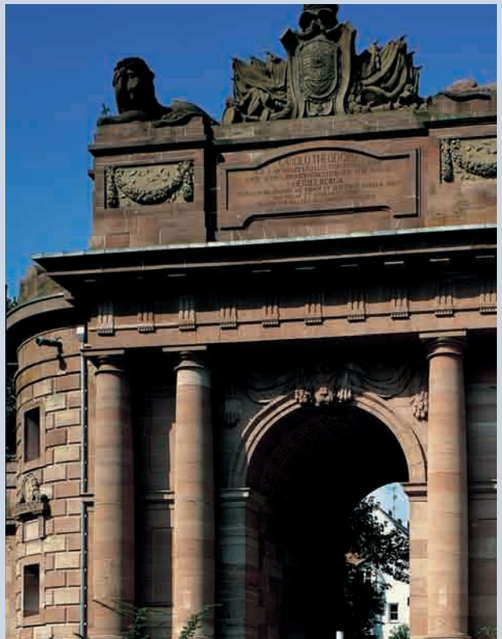
Supporting Societies

The 9th International Symposium on Modern Concepts in Endocarditis and Cardiovascular Infections is supported by the:

- Deutsche Forschungsgemeinschaft (DFG)
- Disease Management Series of the International Society of Chemotherapy (ISC)
- Working Group on Infective Endocarditis of the Paul-Ehrlich Society (PEG)
- Councils on Cardiovascular Disease in the Young and Clinical Cardiology of the American Heart Association (AHA)
- International Collaboration on Endocarditis (ICE)

The 9th International Symposium on Modern Concepts in Endocarditis and Cardiovascular Infections is held in cooperation with the Working Group on Valvular Heart Disease of the European Society of Cardiology (ESC).

The 9th International Symposium on Modern Concepts in Endocarditis and Cardiovascular Infections is acknowledged by the German Society of Cardiology (DGK).



General Information

Congress Venue

Crowne Plaza Heidelberg City Centre
Kurfurstenanlage 1
69115 Heidelberg
Germany
Tel: +49 (0) 62 21 - 91 70
Fax: +49 (0) 62 21 - 2 10 07
E-mail: reservations@cp-heidelberg.de
http://www.crowneplaza-heidelberg.de

Congress Secretariat

KelCon
Keller Congress Organisation

Mrs. Janine Scheffler
KelCon GmbH - Keller Congress Organisation
Ludwigstraße 24-26, 63110 Rodgau
Tel.: +49 (0) 61 06 - 84 44 17
Fax: +49 (0) 61 06 - 84 44 44
Mobile: +49 (0) 151 - 17 14 68 42
+49 (0) 151 - 17 14 68 43
E-mail: j.scheffler@kelcon.de





The **Crowne Plaza Heidelberg** is situated right in the heart of the picturesque city of Heidelberg.
Frankfurt International Airport can be reached within only one hour by bus, car, or train. Comfortable direct shuttle buses departure at the bus station directly behind the Crowne Plaza Heidelberg hotel.
Alternatively, the main station of Heidelberg is only 1 km away from the city centre and is connected with the most important European cities.

Transportation

Arrival by Car

Arriving from the North (A5 Frankfurt-Basel):

- From freeway A5 take the Heidelberger Kreuz exit to the A656 Freeway direction Heidelberg.
- When you reach the Heidelberg city limits turn right.
- The green hotel route B will lead you along the Kurfürstenanlage, past the Römerkreis, directly to the Crowne Plaza Heidelberg which will be on your right.
- Please drive past the hotel, turn right at the intersection, and take an immediate right onto Bahnhofstraße.
- The entrance will be on your right.

Arriving from the South (A5 Basel-Frankfurt):

- Take the Heidelberg / Schwetzingen exit from the A5 freeway to the B 535 freeway direction Heidelberg.
- When you reach the Heidelberg city limits, continue driving straight ahead.
- The green hotel route B will lead you along Speyerer Straße, past the Römerkreis, directly to the Crowne Plaza Heidelberg.
- You will find the entrance to the under ground parking garage behind the hotel building.
- Please drive past the hotel, turn right at the intersection, and take an immediate right onto Bahnhofstraße.
- The entrance will be on your right.

Transportation

From Frankfurt International Airport:

By bus - a bus service is operating every hour from Frankfurt International Airport to the bus station directly behind the Crowne Plaza Heidelberg hotel. Tickets can be bought directly on the bus. For detailed bus timetable and ticket reservations check http://www.lufthansa-airportbus.com

By train - direct trains are available every day from Frankfurt International Airport to Heidelberg main railway station with an average travel time of 60 minutes. For detailed train timetable check http://reiseauskunft.bahn.de/bin/query.exe/en

From Heidelberg Main Railway Station

By foot - the main station of Heidelberg is only 1 km away from the Congress Venue.

By taxis - taxis in Heidelberg can be ordered by phone (+49-6221- 729798 or 315225 or 30 20 30) or found at the official taxi stands in front of the railway station.
The approximate price is € 5.-

By bus - With bus numbers 11, 41, 42 or with the tramline 1 in direction Bismarckplatz (platz=square), alight at the Poststraße stop. Tickets can be purchased from the driver or at any vending machine. Upon alighting at the Poststraße you shall see the hotel located diagonally opposite the bus / tram stop.
For detailed information check http://www.vrn.de/index.html

Car Parking - 134 parking spaces in an underground parking garage are at your disposal (parking fee). The entrance to the parking garage is located behind the hotel on Bahnhofstraße (straße=street.) Please drive along the Kurfürstenanlage past the hotel, turn right at the first intersection and take an immediate right onto Bahnhofstraße. You will find the entrance on your right.

General Information

Official Language
English is the official language of the Congress. No simultaneous translation is provided for the scientific sessions.

Information Desk
An Information Desk (Info Desk) is located in the Congress Venue, basement floor, just beside the Exhibition Area, and is available for any queries regarding the Congress, lost and found goods, messages for other participants.

Exhibition
A Trade Show Exhibition, located in the Congress Venue (basement floor), is scheduled following the same timetable as the scientific sessions. Exhibitors may refer to the Information Desk, just beside the Exhibition area, for any need.

Weather
The weather in Heidelberg is usually pleasant and warm in June with an average temperature of 18-28°C.

Badge
A name badge is included in the congress kit and must be collected at the Registration Desk. This badge is the official congress document for registered delegates and must be worn in the Congress Venue, during the scientific sessions and social activities.

Insurance
The Congress Organisers are not liable for personal injuries or loss of / damage to property belonging to delegates (or their accompanying persons), occurring either during or as a result of the Congress. Participants are required to make their own arrangements for health and travel insurance. Members of the European Community are advised to take out the health insurance form E111 in their countries of origin.

Smoking Policy
This Congress follows a strict no-smoking policy. Therefore all participants are kindly requested to refrain from smoking in any area within the Congress Venue.

General Information

Mobile Phones
All participants are kindly requested to keep their mobile phones turned off in the Congress Venue and in the meeting rooms during the scientific sessions.

Useful Telephone Numbers in Heidelberg

Medical emergency 19222

Fire emergency 112

Police 110

Taxi call +49 - 62 21- 72 97 98 or 31 52 25 or 30 20 30

Frankfurt Airport Information 0 18 05 3724636 (nat.) or +49 - 69 690 0 (internat.)

Congress Venue (Heidelberg Crown Plaza)
Tel: +49 - 62 21 - 91 70

Congress Secretariat
Tel: +49 (0) 151 - 17 14 68 42
+49 (0) 151 - 17 14 68 43

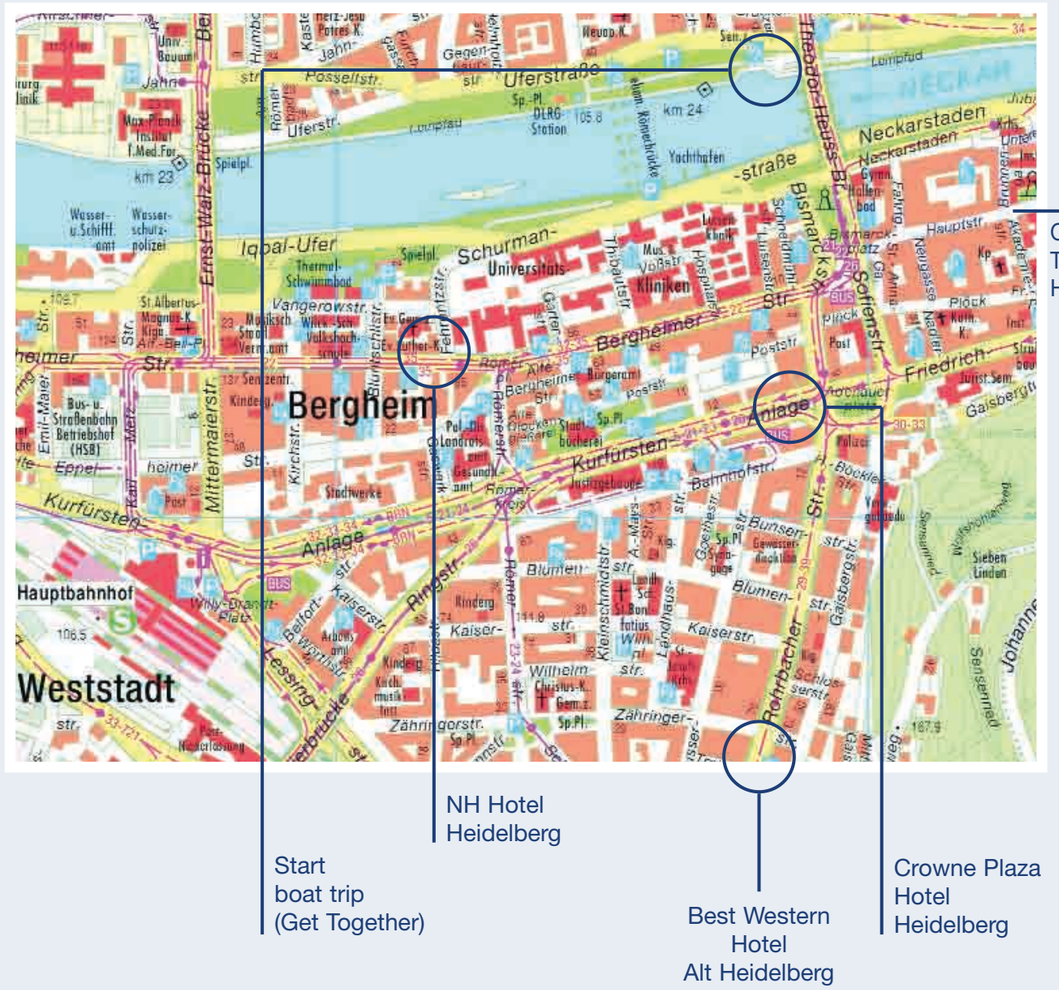
For international calls to Germany
+49 + number

Social Program

Get Together on Thursday, June 14th 2007
We will leave at 6:00 p.m. for a 1 h boat trip on the river Neckar. Snacks and drinks will be provided. The boat will drop us in the old town of Heidelberg. You will then have the opportunity to take a walk back to the hotel (appx. 15 min), or stroll through the beautiful old town, and meet with some friends for dinner in one of the typical German half timbered guest houses. Please register accompanying persons for € 15,- each.

Gala Dinner on Saturday, June 16th 2007
We will meet for a reception on the balcony of the Heidelberg castle at 7:00 p.m. The Gala Dinner starts at 08:00 p.m. and will take place in the beautiful Renaissance-wing (Ottheinrichsbau) of the castle, built in the mid 16th century Please register accompanying persons for € 40,- each.

Map of Heidelberg



Registration & Housing

The Full registration fees include:
Access to the scientific sessions and exhibition area, the congress kit and name badge, the final programme and abstract book, the CME kit, certificate of attendance, coffee breaks, invitation to the Get Together and the Gala Dinner.

The Daily registration fee includes:
Access to the scientific sessions of the selected day and exhibition area, the congress kit and name badge, the final programme and abstract book, the CME kit, certificate of attendance, coffee breaks of the selected day. This registration type is available for a maximum of one day; more days necessitate a full registration.

Advance registration fees
Full Registration € 390,00
Get Together, June 14th
(for accompanying persons) € 15,00
Gala Dinner, June 16th
(for accompanying persons) € 40,00

On site registration fees:
Full Registration € 490,00
Daily registration
(maximum one day) € 180,00
Get Together, June 14th
(for accompanying persons) € 15,00
Gala Dinner, June 16th
(for accompanying persons) € 40,00

Hotels:
CROWNE PLAZA HOTEL Heidelberg****
Kurfürstenanlage 1, 69115 Heidelberg
Single Rooms: 195,00 €
Double Rooms: 220,00 €

NH HOTEL Heidelberg****
Bergheimerstr. 91, 69115 Heidelberg
Single Rooms: 155,00 €
Double Rooms: 170,00 €

BEST WESTERN HOTEL Alt Heidelberg***
Rohrbacherstr. 29, 69115 Heidelberg
Single Rooms: 130,00 €
Double Rooms: 145,00 €

Scientific Awards

Elias Abrutyn Young Investigator Award
The prize will be 500 US$ and free access to the conference.

Infective Endocarditis and Bloodstream Infections Young Investigator Award
(sponsored by Novartis)
The prize will be a sponsored trip to the 47th Annual Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC™) in Chicago this year.

The winners will be chosen from among the abstract presenters at the 9th International Symposium on Modern Concepts in Edocarditis and Cardiovascular Infections, must be still in training and under the age of 35.

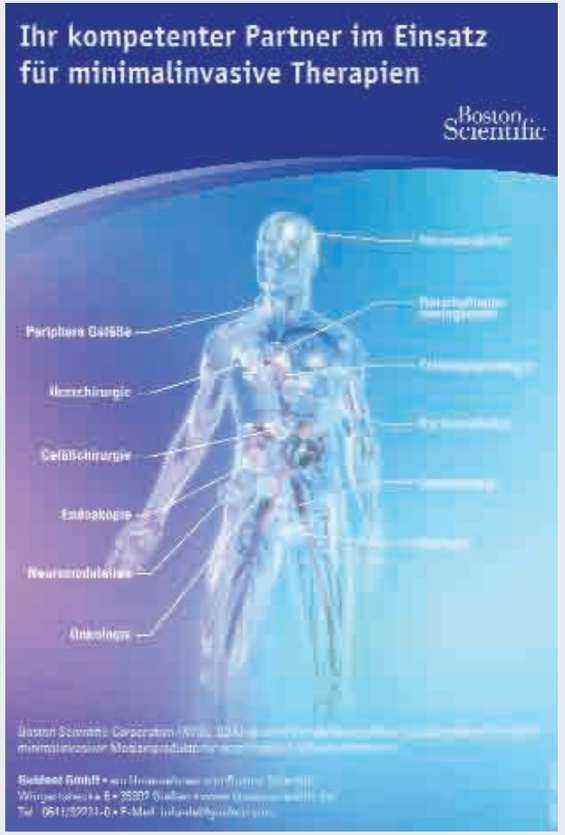
Instructions for Oral and Poster Presentations

Oral Presentations:

- There will be NO Slide Preview Centre available during the conference.
- ONLY Powerpoint presentations are allowed.
- Powerpoint presentations (Laptop, CDs, USB pens) must be delivered directly to the technical staff in the conference hall at least one hour before the beginning of the session.
- It is NOT possible to directly use a personal laptop at the podium.

Poster Presentations:

- The title of the presentation and the authors' names must be indicated at the top of the poster.
- The poster display area is located in the congress venue (basement floor).
- Poster size is 60 cm width and 120 cm higth.
- Posters must be put up at 08:30 a.m. in the morning of June 15th and must be removed by presenters June 17th no later than 12:30 p.m.
- Posters left on the boards after the above deadline will be destroyed.
- The presenting authors must wear the personal badges and be present in the poster area close to their boards during the session brakes at June 15th to 17th.



Long-term mortality in infective endocarditis: a prospective population-based survey conducted between 1999 and 2005 in France.

A Bannay, C Selton-Suty, X Duval, F Delahaye, T Doco-Lecompte, B Hoen, F Alla, for the AEPEI group

Background- Only few population-based studies describe the long-term prognosis of patients hospitalized for infective endocarditis (IE). The aim of our study is to assess the five-year survival after an IE.

Methods and results- 559 IE definite cases in patients older than 15 years were collected in a prospective population-based survey conducted between December 1998 and March 2000 in six French regions (a population of 16 million inhabitants). The vital status at five years was obtained by contacting registry offices and general practitioners. Mean age was 59 ± 16.8 years; 72% of patients were male. 46% of patients had not previously known heart disease, one third had native valve disease, and 15% had prosthetic valve; 76% of patients were suffering from a left-sided valve IE, 10% from a right-sided valve IE and 2% from both sides IE. The most frequently identified microorganisms were Streptococcaceae (56% of the cases), then Staphylococcaceae (29%); no microorganism was identified in 5% of the cases. In-hospital mortality was 17% (95 / 559). Determined by Kaplan-Meier method 2-year mortality was 31% and 5-year mortality 41% (17% lost to follow-up).

Conclusion- Long-term IE survival rate is poor. Prognostic study will identify factors related to survival.

Correlates and prognostic value of the degree of heart failure in infective endocarditis. Results from the International Collaboration on Endocarditis Prospective Cohort Study.

Emanuele Durante-Mangoni[1], Ana del Rio[2], Christopher Cabell[3], Jameela Edathodu[4], Paul Pappas[5], Phillipe Moreillon[6], Marie-Françoise Tripodi[1], Roberta Casillo[1], Christophe Tribouilloy[7], Riccardo Utili[1], for the ICE PCS Group.

[1]II Università di Napoli, Italy; [2]Hosp. Clinic – IDIBAPS, University of Barcelona, Spain; [3]Duke University Medical Center, Durham, NC; [4]King Faisal Specialist Hospital & Research Center, Riyiadh, Saudi Arabia; [5]ICE Coordinating Center, Durham, NC; [6]ICE Steering Committee; [7]South Hospital, Amiens, France.

Background

Congestive heart failure (CHF) is a major complication of infective endocarditis (IE). To identify risk factors for CHF as well as its prognostic implications, we studied the microbiological, echocardiographic and clinical data of consecutive patients enrolled in the International Collaboration on Endocarditis Prospective Cohort Study.

Methods and Results

Among 2706 patients admitted between June 2000 and December 2006, 750 (20.4%) had New York Heart Association (NYHA) functional class data reported. Patients were split into two groups according to NYHA class I-II (pooled), or III-IV (pooled). Patient groups did not differ according to demographics, predisposing conditions at clinical history and prevalence of major IE risk factors. Clinically, there were no major differences among the three groups, apart from a higher incidence of tricuspid valve IE location and septic pulmonary embolism in NYHA I-II class patients. The distribution of pathogens did not significantly differ among the three groups, despite a trend for a higher incidence of fungi in NYHA I-II class group. The incidence of intracardiac abscesses and other paravalvular complications increased with rising NYHA class. The number of patients treated with both medical and surgical therapy increased from 49% in NYHA class I-II patients to 63% in class III-IV patients.
Overall, the incidence of complications was significantly higher in class III and IV patients. Mortality was 11% in class I-II, 23% in class III and 41% in class IV patients ($p<0.001$).

Conclusions

Our data show that the degree of cardiac dysfunction in IE impacts the therapeutic approach and severely affects the prognosis. Right sided IE carries a lower risk of CHF. The analysis of all clinical, microbiological and echocardiographic data commonly obtained in IE patients does not provide information on the possible risk factors for CHF in this condition. Further studies are needed to ascertain whether the activation of neuro-humoral systems may play an adjunctive role in the pathogenesis of cardiac dysfunction in IE.

Pacemaker infections: A 10 years experience

Dr Andrei Catanchin[1] MBBS FRACP
Dr Challon J Murdock[1] MBBS FRACP
A/Prof Eugene Athan[2] MBBS FRACP
(presenting author)

Departments of Cardiology[1] and Infectious Diseases[2]
Barwon Health, Geelong VIC, AUSTRALIA

Background

Infection is a major and increasingly important complication of pacemaker and defibrillator (PPM/ICD) implantation. The experience in an Australian regional centre is reported.

Methods & Results

10 years' (1994-2004) cases of PPM/ICD infection were retrospectively analysed and compared to overall insertion data; management and outcomes were examined. A total 39 cases (79.5% male, median age 71.3y) were identified, 24 in the primary centre where 1481 procedures were performed (infection rate 1.6%, endocarditis rate 0.3%). Patients with infection had an average 2.2 total procedures performed (odds ratio for infection if >1 procedure = 4.7). 14 cases (36%) were de novo implantations, 35 (90%) pacemakers, 11 (28%) recurrent. No difference in operation duration or difficulty was noted between infected and non-infected cases. Infection in 18 cases (46%) involved lead/s, 16 (41%) generator and 5 (13%) both. Median time to presentation was 7.9 months. Echocardiography demonstrated lead vegetations in 8 cases. Organisms were identified in 25 (64%) - 92% Staphylococci (65% S aureus), with positive blood cultures in 18. The PPM/ICD was removed in 26 (67%), including the lead/s in 89%; the average hospital stay was 37 days. One death attributable to PPM/ICD infection (mortality 2.6%) occurred during a median follow-up of 29.3 months.

Conclusions

A PPM/ICD infection rate of 1.6% was demonstrated. Second and subsequent procedures carried an almost 5 times greater infection risk.

Additional Abstracts

Table: Infection rate (primary centre)

	1 operation	1 operation*	Total
Infected (n)	10	14	24
Not infected (n)	1120	337	1457
Total (n)	1130	351	1481
Infection rate	**0,88%**	**3,99%**	**1,62%**

** Odds ratio for infection given patients had had more than one procedure = 4.7 (95% CI 2.1-10.6), p<0.001*

First case of infective endocarditis caused by community-acquired methicillin-resistant Staphylococcus aureus not associated with health care contact in Brazil.

Claudio Querido Fortes[1], Claudia Adelino Espanha[1], Flavio Pedreira Bustorff[1], Bruno Cordeiro Zappa[1], Adriana Lucia Pires Ferreira[1], Nelson Gonçalves Pereira[1], Vance G. Fowler Jr[2], [1]Hospital Universitário Clementino Fraga Filho, Rio de Janeiro. [2]Duke University Medical Center, Durham, North Carolina

Objective

To describe a case of infective endocarditis caused by CA-MRSA in Rio de Janeiro, Brazil.

Case report

A 27 years old, male, was admitted to an emergency department of another institution after three days of headache, high fever, arthralgias and myalgia. During the 24 hours before admission it was noted petechiae and purpura on the patient's foot and ankle and a change in behavior, somnolence, and during the last few hours before presentation, agitation and confusion. There was a history of aninfection in a traumatic wound in foot one week before the beginning of the symptoms.

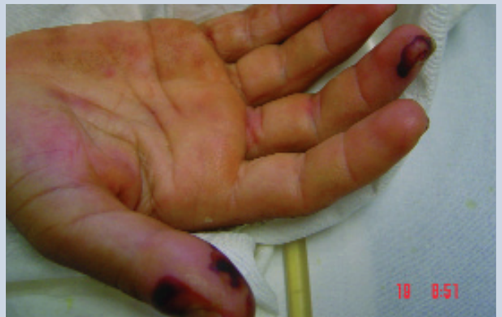
Patient denied a history of intravenous drug use. He had no other relevant past medical history and no previous hospital admissions. Transthoracic echocardiography and computed tomography of the head were normal. A diagnosis of infective endocarditis or meningococcemia was considered and intravenous ceftriaxone, vacomycin therapy was started and was transferred to our institution for further evaluation. On physical examination at our hospital his temperature was 40.0ºC, blood pressure was 150/100 mm Hg, and pulse rate was regular at 90/min. He presents conjunctival hemorrhage, hemorrhages at the fingernails, petechiae and purpura on the lower limbs and purulent purpura on his foot. Cardiovascular examination revealed a 3/6 systolic murmur at the cardiac apex. Auscultation of the chest found rales at the left base. A tender hepatomegaly was found. Neurological examination showed nuchal rigidity but no focal neurological deficits were identified. Two days after the admission transthoracic echocardiography showed vegetation on the anterior mitral valve leaflet and CA-MRSA was reported to be growing in three bottles of blood cultures taken on admission. The vancomycin minimal inhibitory concentration was 2 µg/ml by E-test. This MRSA strain was susceptible to cotrimoxazole; therefore, cotrimoxazole was added to the treatment regimen and ceftriaxone was stopped. After eleven days of vancomycin plus cotrimoxazole the cotrimoxazole was stopped due to adverse effects.

Additional Abstracts

On the 15th hospital day, emergency splenectomy was performed for the splenic abscess. After one month on treatment the patient begun to present syncope. Computed tomography revealed infarction with hemorrhagic conversion and cerebral angiography discovered a mycotic aneurysm. Two weeks latter a new cerebral angiography showed resolution of the mycotic aneurysm. Since the beginning of hospitalization the patient had indication for valvar replacement but it wasn't done due to the presence of spleen abscess and cerebral mycotic aneurysm. When these complications were resolved he did not have indication for valvar replacement anymore.
The patient was discharged from the hospital after three months of treatment in good condition.

Conclusion

To the authors'knowledge this is the first reported case of CA-MRSA endocarditis without any kind of health care contact in Brazil.
Cases of CA-MRSA endocarditis are likely to increase and it may be necessary to empirically treat with glycopeptides.



Diagnostic conundrum caused by local blood culture contamination rate

M.M. Cullen, B.J. Isalska

Background

The technique for drawing blood for culture requires that measures be taken to minimise the risk of contamination of the sample with skin flora. This is particularly important when cultures are being taken for the diagnosis of prosthetic cardiac device infections for which the aetiological agent may be a skin commensal.

Case report

A 61 year old male presented with increa
singly frequent episodes of 'shaking' during the previous 3-4 months, not associated with fever. Past history included aortic valve replacement in 1970 and mitral valve replacement in 2005. He also had a permanent pacemaker implanted 12 years previously. He reported a dental visit one month prior to presentation for which amoxicillin prophylaxis was given.
On examination he appeared well with a temperature of 37.6ºC. There were no stigmata of endocarditis or cardiac failure. He had prosthetic heart sounds and an early systolic murwhich was not new. Due to the history of prosthetic valves, dental work, possible rigors and no other obvious source of infection, a diagnosis of subacute bacterial endocarditis was considered. Initial blood investigations

Additional Abstracts

found his haemoglobin to be reduced at 112g/L, white cell count raised at 12.6 x 109/L and C-reactive protein (CRP) raised at 47mg/L. Three separate sets of blood cultures were taken. One of the six bottles grew a ‘diphtheroid’ at 6 days. After further incubation a second bottle grew a ‘diphtheroid’ at 10 days. A trans-thoracic echocardiogram was carried out but no vegetations were seen. A total of 32 blood culture bottles were sent from the patient over a three week period during which time he had further ‘shaking’ episodes but did not receive any antibiotics. Five bottles eventually grew a ‘diphtheroid’ at 4-10 days. This was identified as Proprionibacterium acnes susceptible to penicillin, erythromycin and vancomycin. Streptococcus oralis grew from one bottle and was resistant to penicillin and erythromycin but susceptible to vancomycin. Because of continuing symptoms, a transoesophageal echocardiogram was performed three weeks after the original echocardiogram. This was reported as showing a small mobile mass at the tip of the atrial pacemaker wire and a mobile mass attached to the ventricular lead, both having the appearance of clot but with the possibility of being vegetations. The patient was commenced on benzylpenicillin 1.2g 4-hourly and gentamicin 80mg 8-hourly. His symptoms subsequently settled and his CRP fell to 11mg/L after 2 weeks of intravenous antibiotics. He was discharged home on oral amoxicillin.

Discussion

We report a case of pacemaker infection presumed to be caused by Propionibacterium acnes. Repeated blood culturing grew ‘diphtheroids’ in 5 out of 32 bottles (15.6%). Our recently determined local blood culture contamination rate was on average 15.6% during 2003 – 2004. Determination of the clinical significance of the organism grown was thus impeded by the knowledge of the local contamination rate. Education on the correct blood culture sampling technique is required to minimise the risk of contamination, thus reducing time spent pursuing false positive results and allowing more rigorous assessment of the clinical significance of true positves.

Sponsors

Platinum

NOVARTIS

Gold

astellas

Silver

Wyeth

Medtronic

Friends

Bayer HealthCare
Bayer Vital

Boston Scientific

BD

Immun Diagnostik

MSD

REICHERT GmbH
Fachbuchhandlung für Medizin
www.bookmed-reichert.de

Pfizer
Life is our life's work.

sanofi aventis

SIRS Lab

ST. JUDE MEDICAL

NOVARTIS

CUBICIN®
(daptomycin for injection)

CUB/CHA/CON/57/22-03-07