HOT TOPICS

FALLVORSTELLUNG VAPORISIERUNG VON VEGETATIONEN

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TLE COMMUNITY & FRIENDS

The future belongs to those who prepare for it today!

WISSENSCHAFTLICHE LEITUNG:

PD Dr. med. Samer Hakmi, Asklepios Klinik St. Georg

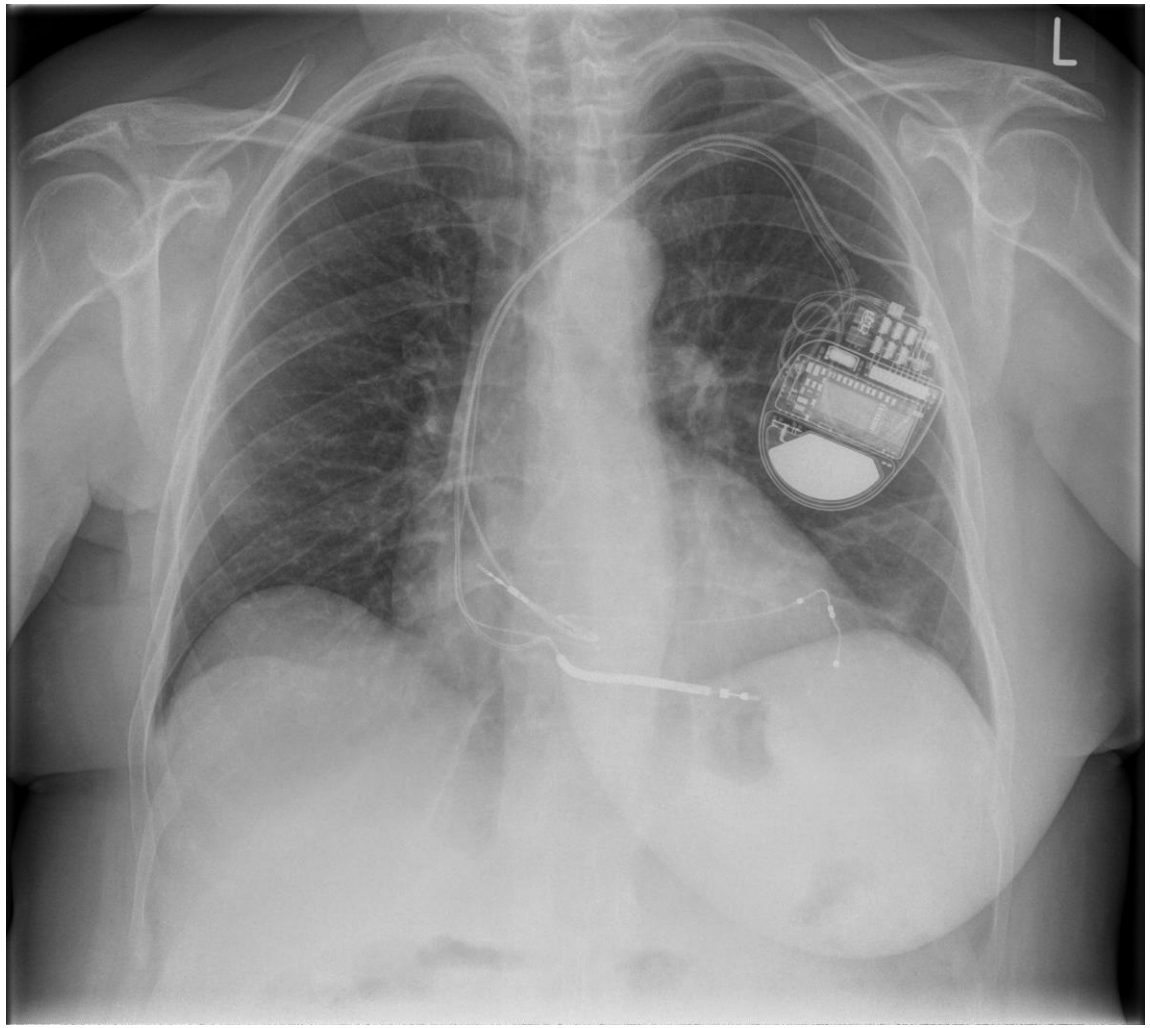
Radisson Blu, Congressplatz 2, 20355 Hamburg

PATIENT HISTORY

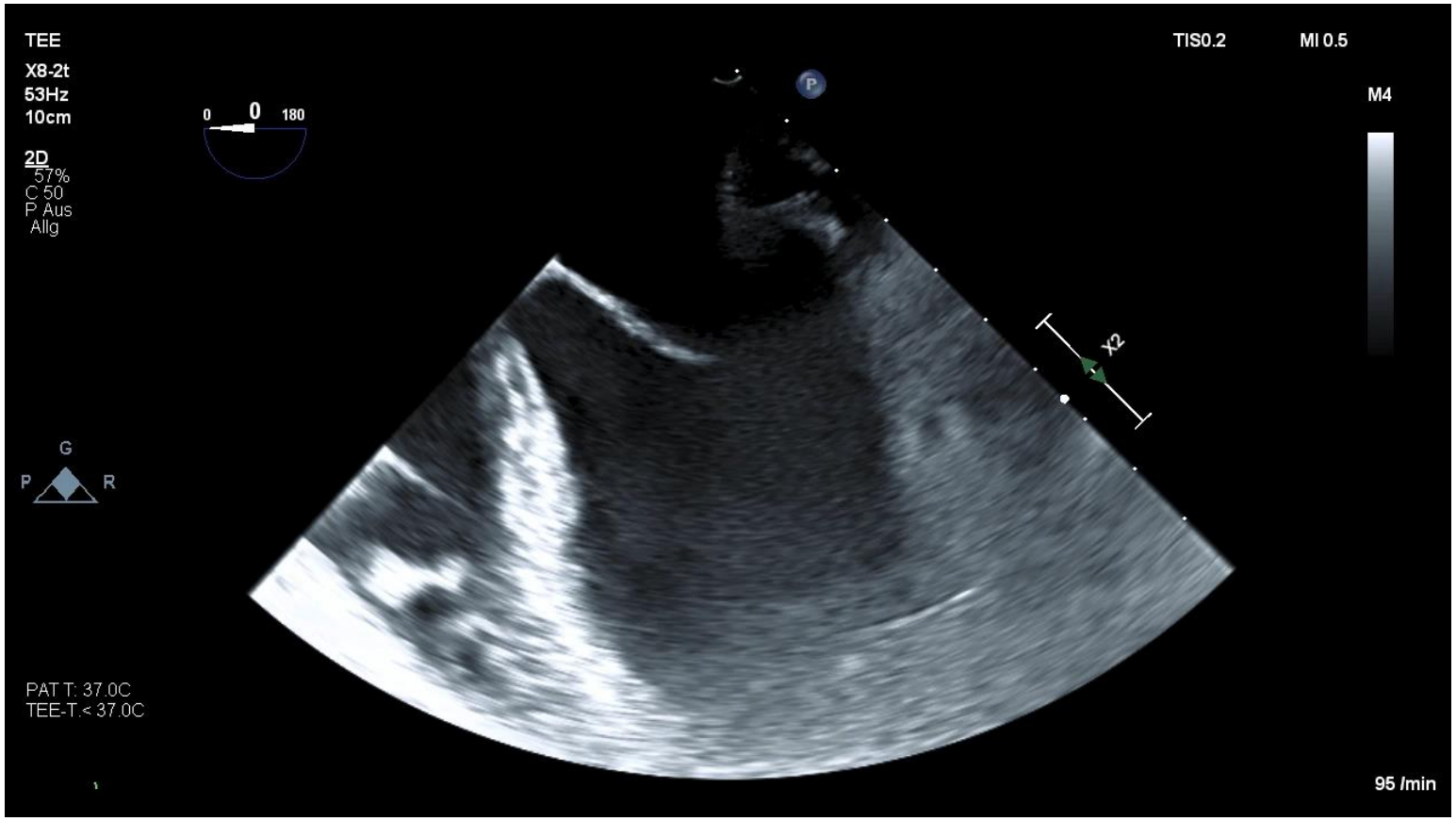
- 64J, w
- Triple negatives Mamma-Ca rechts (ED 05/2019)
  - cT1c pN1 M0 L1 V1 G3
  - Z. n. neoadjuvanter Chemotherapie, OP und Radiotherapie 2019
  - Z. n. rezid. Lymphknotenmetastasierung axillär rechts mit 2xOP
  - Z. n. Portimplantation links mit folgender Thrombose und anschließender Explantation
- Koronarsklerose ohne relevante Stenosierung (HKU 10/2019)
- Karotissklerose ohne signifikante Stenosierung (Duplex 05/2023)
- Arterielle Hypertonie, Hyperlipoproteinämie
- Z. n. Armvenenthrombose 2019 links und beidseitige Beinvenenthrombose 2021
- OAK mit Eliquis

PATIENT HISTORY

- 64J, w
- tox. Kardiomyopathie
  - TTE 10/2019: LVEF 15 %, posterolaterale Hypokinesie, übrige Wandabschnitte nahezu akinetisch, TI I
  - Linksschenkelblock QRS 160 ms
  - Z. n. CRT-D Impl. 2019
  - Z.n. Impl. PICC rechts für Chemo



DIAGNOSTICS



- TK/Device-Endokarditis
  - Blutkultur sowie PICC 3.5.2023: Staphylococcus epidermidis
  - TTE 8.5.2023: LVEF normal, AK/MK unauff., Vegetation 3,2 cm an der RV-Sonde im Bereich des Klappendurchtritts, flottierender Anteil 15x6mm groß, übergreifend auf das septale Segel der TK
  - Antibiotikatherapie:

    Flucloxacillin ab 10.5.2023 +
    Rifampicin ab 12.5.2023
  - Verlegung ins Herzzentrum Dresden am 15.05.2023
  - Le 6,9, CRP 100, keine Katecholamine

INDICATION

ESC European Society of Cardiology
European Heart Journal (2023) **00**, 1–95
https://doi.org/10.1093/eurheartj/ehad193

ESC GUIDELINES

2023 ESC Guidelines for the management of endocarditis

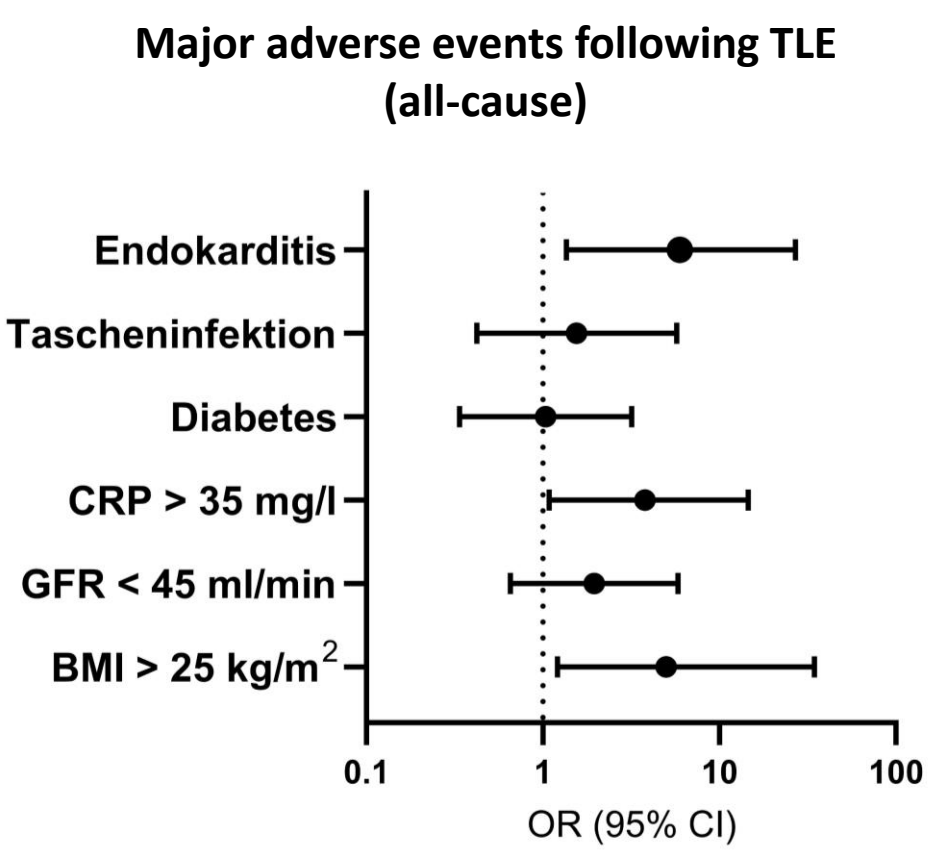
Developed by the task force on the management of endocarditis of the European Society of Cardiology (ESC)

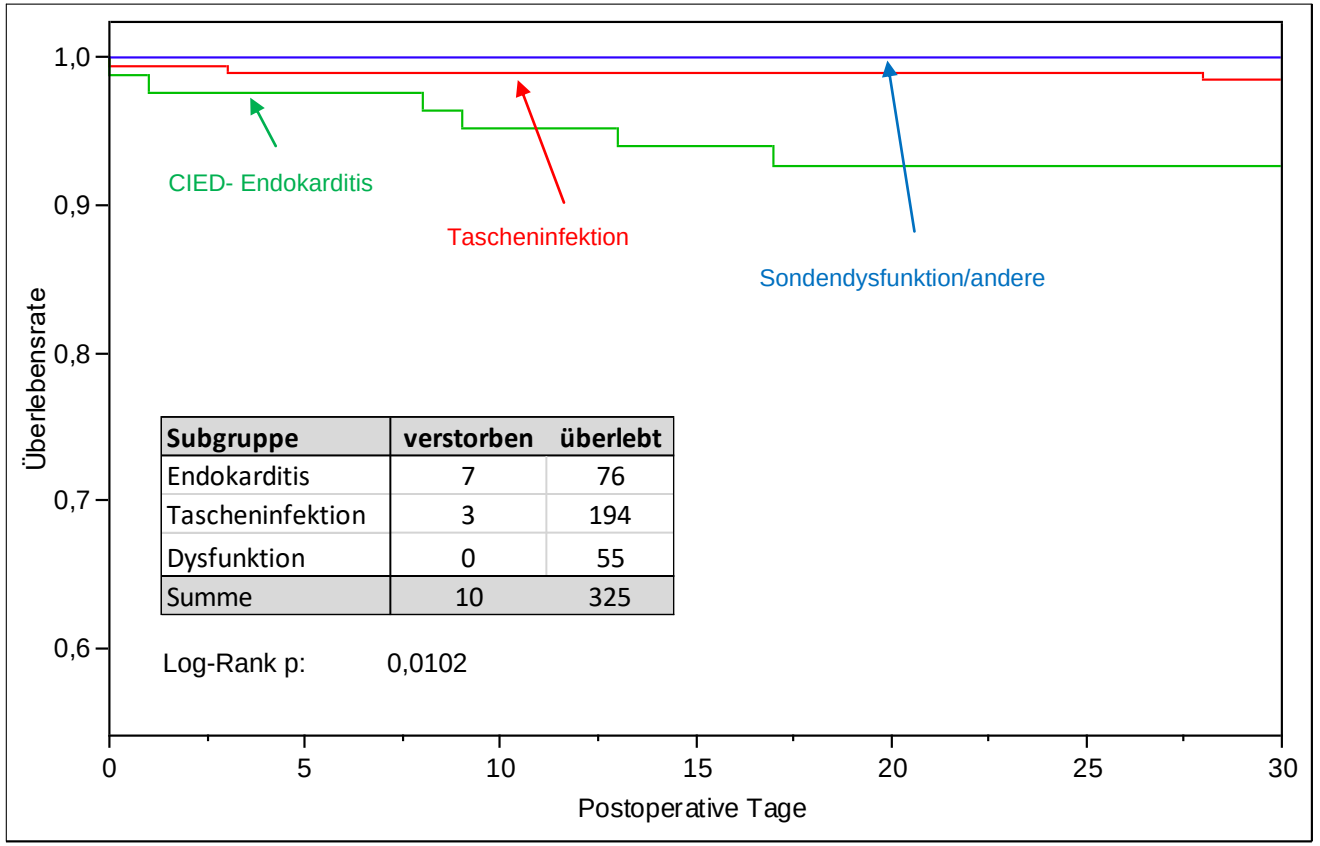
12.4. Infective endocarditis affecting cardiac implantable electronic devices

Device-related infection is one of the most serious complications of CIED therapy and is associated with significant mortality and morbidity.[671]

Lead extraction should be performed, without delay (i.e. within the first days of admission), as this has been shown to be associated with improved outcomes.[698,699,704] Percutaneous rather than surgical extraction is the preferred procedure, but requires specialized tools and should be performed in centres with expertise in this technique and with onsite surgical backup, due to the risk of life-threatening tamponade and vein laceration.

INDICATION



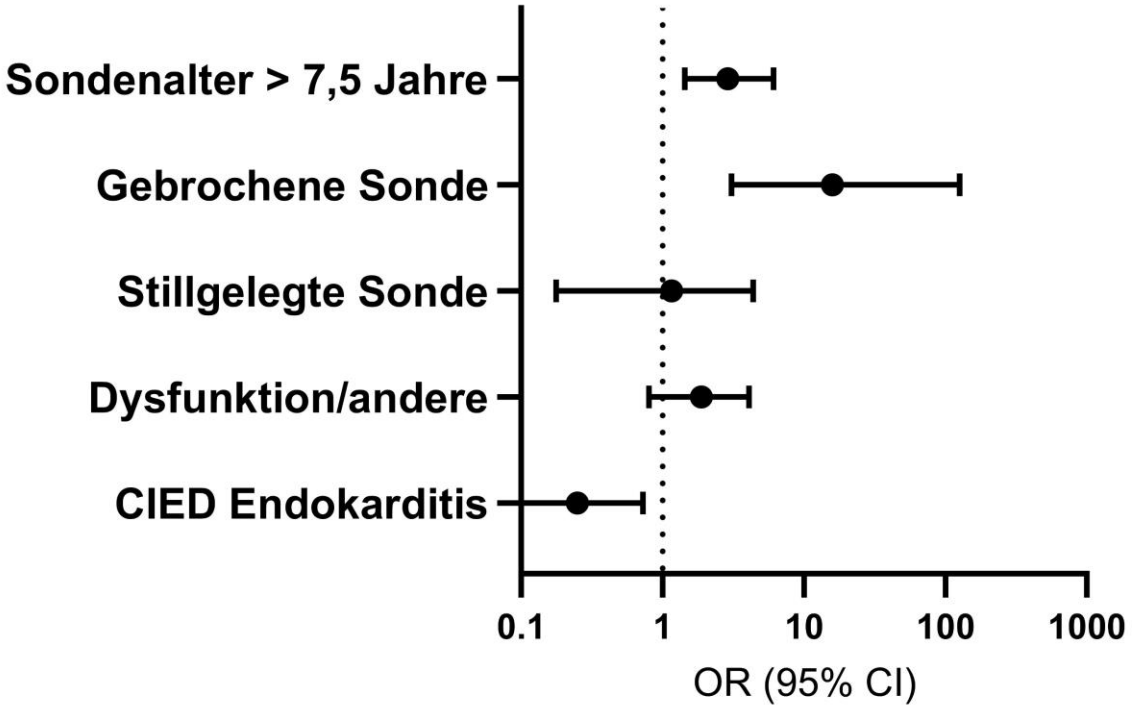


Subgruppe	verstorben	überlebt
Endokarditis	7	76
Tascheninfektion	3	194
Dysfunktion	0	55
Summe	10	325

Log-Rank p: 0,0102

INDICATION

Unabhängige Faktoren asoziiert mit inkompletter Extraktion



INDICATION

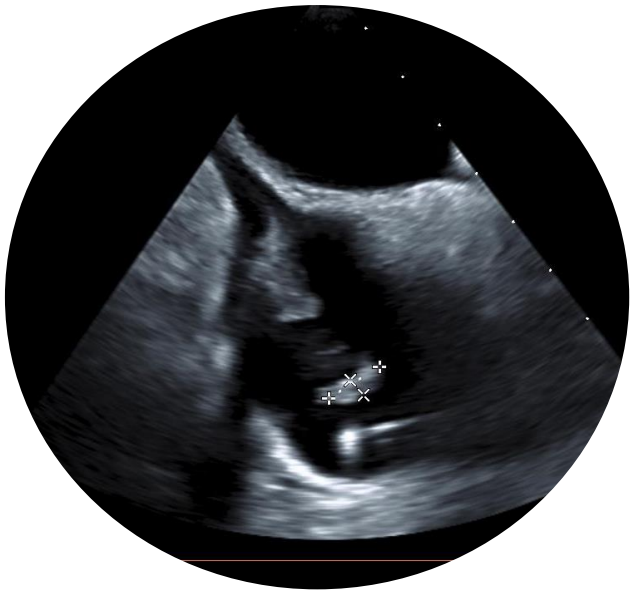
Thorac Cardiovasc Surg 2015; 63 - OP49
DOI: 10.1055/s-0035-1544301

Laser Extraction of Pacemaker and Implantable Cardioverter-Defibrillator Leads in Patients with Large Intracardiac Lead Vegetations ≥ 20 mm

S. Hakmi [1], S. Pecha [1], Y. Yildirim [1], N. Gosau [2], L. Conradi [1], M. A. Aydin [2], S. Willems [2], H. Reichenspurner [1], H. Treede [1]

[1]Universitäres Herzzentrum Hamburg, Herzchirurgie, Hamburg, Germany
[2]Universitäres Herzzentrum Hamburg, Elektrophysiologie, Hamburg, Germany

Video: T. Madej



ESC European Society of Cardiology
Europace (2020) 22, 133–138
doi:10.1093/europace/euz283

CLINICAL RESEARCH
Leads and lead extraction

Transcatheter aspiration of large pacemaker and implantable cardioverter-defibrillator lead vegetations facilitating safe transvenous lead extraction

Christoph T. Starck [1,2,3*†], Raymond H.M. Schaerf[4,5*†], Alexander Breitenstein [6], Sasan Najibi[4], John Conrad[4], Joseph Berendt[4], Fardad Esmailian[5], Jürgen Eulert-Grehn [1,2], Thomas Dreizler[1], and Volkmar Falk [1,2,7]

konservativ / palliativ?

HeartRhythm
Heart Rhythm Society

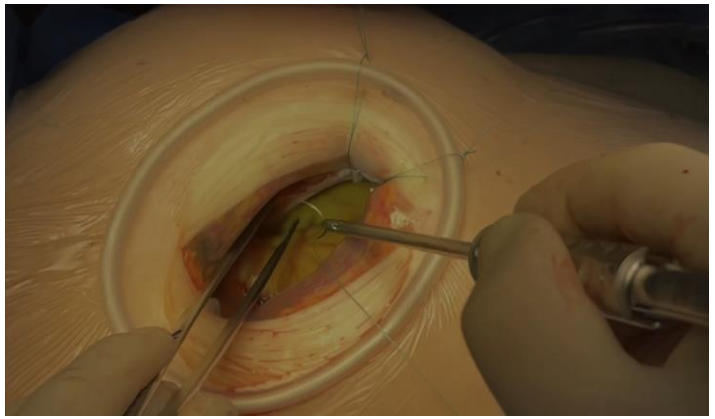
Influence of vegetation shape on outcomes in transvenous lead extractions: Does shape matter?

Yingyot Arora, BS • Adryan A. Perez, BS • Roger G. Carrillo, MD, MBA, FHRS

Published: November 19, 2019 • DOI: https://doi.org/10.1016/j.hrthm.2019.11.015 • Check for updates

Foto: M. Knaut

MIC



Video: M. Wilbring

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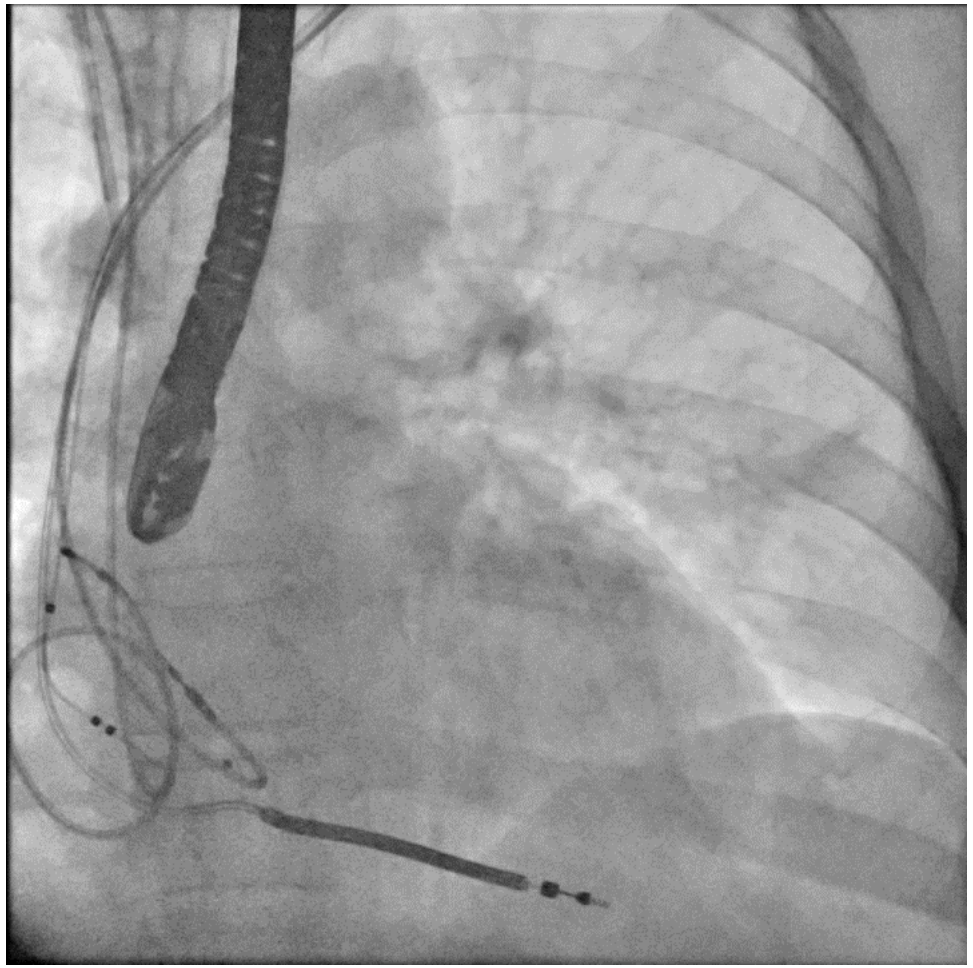
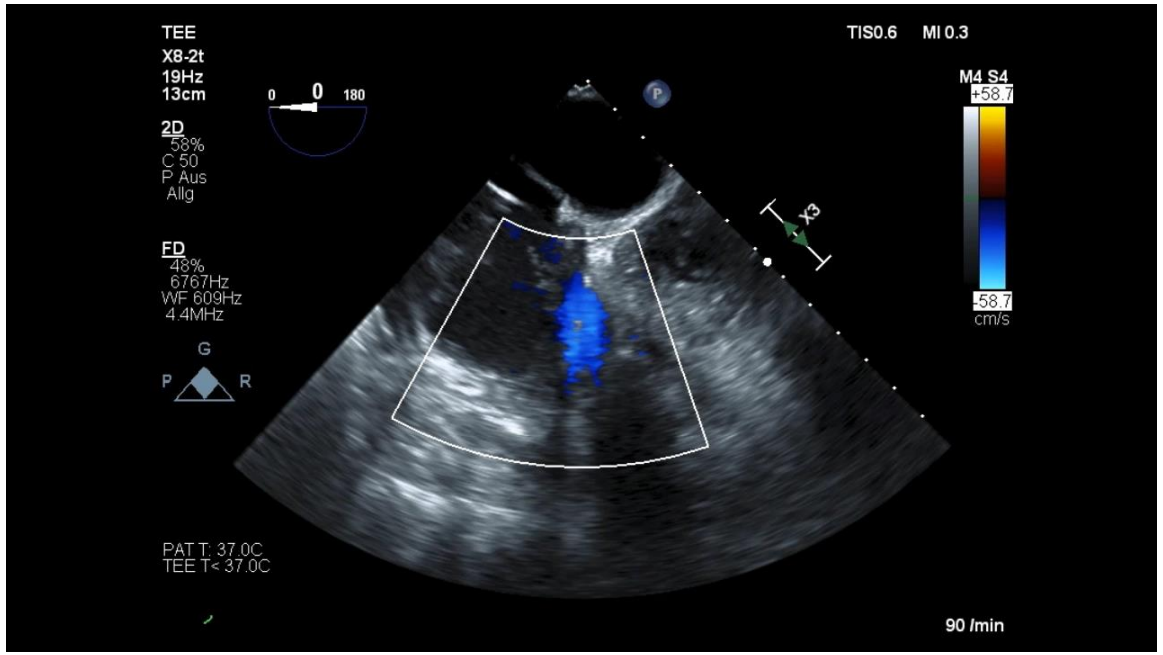
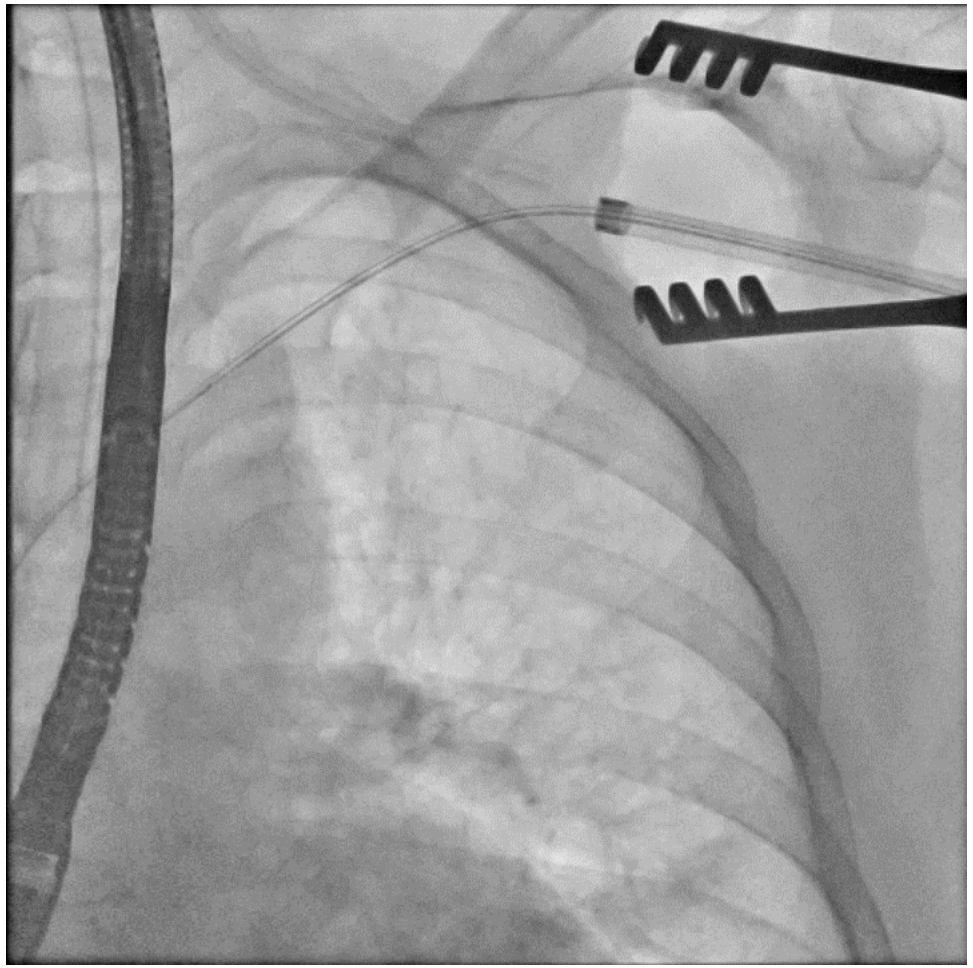
Large vegetations may be aspirated percutaneously before lead extraction to reduce risk associated with embolization.[705] Surgical lead extraction should be considered in case of large vegetations (e.g. >20 mm)[679] and if aspiration is not available or is unsuccessful. Surgical removal is also the preferred technique if valve surgery is indicated.

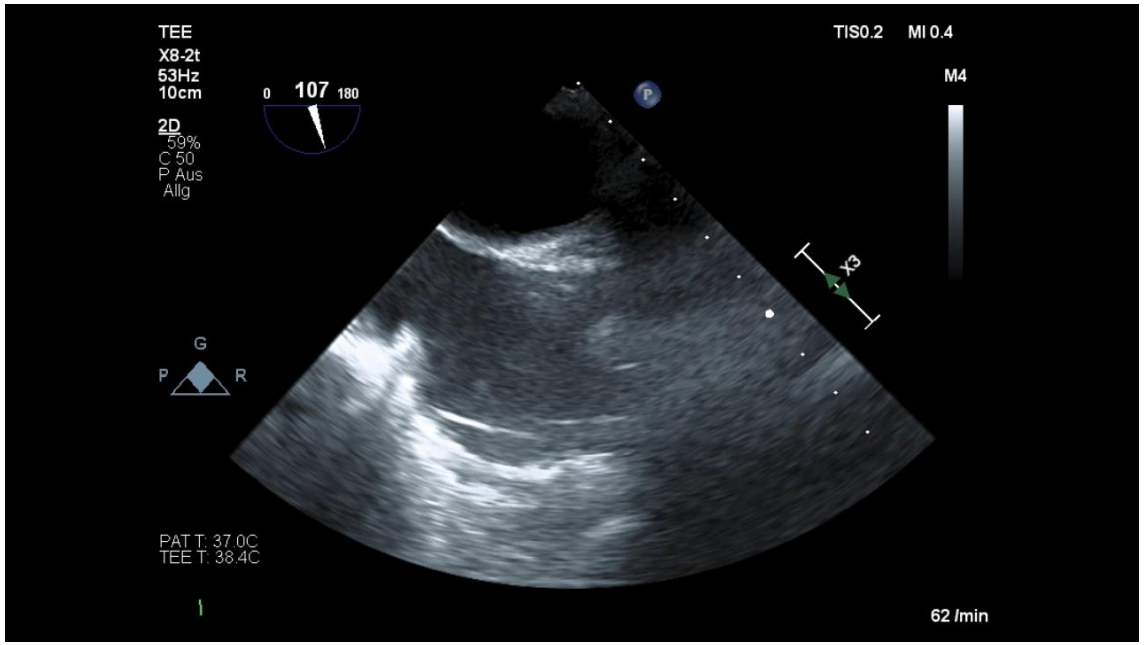
MANAGEMENT



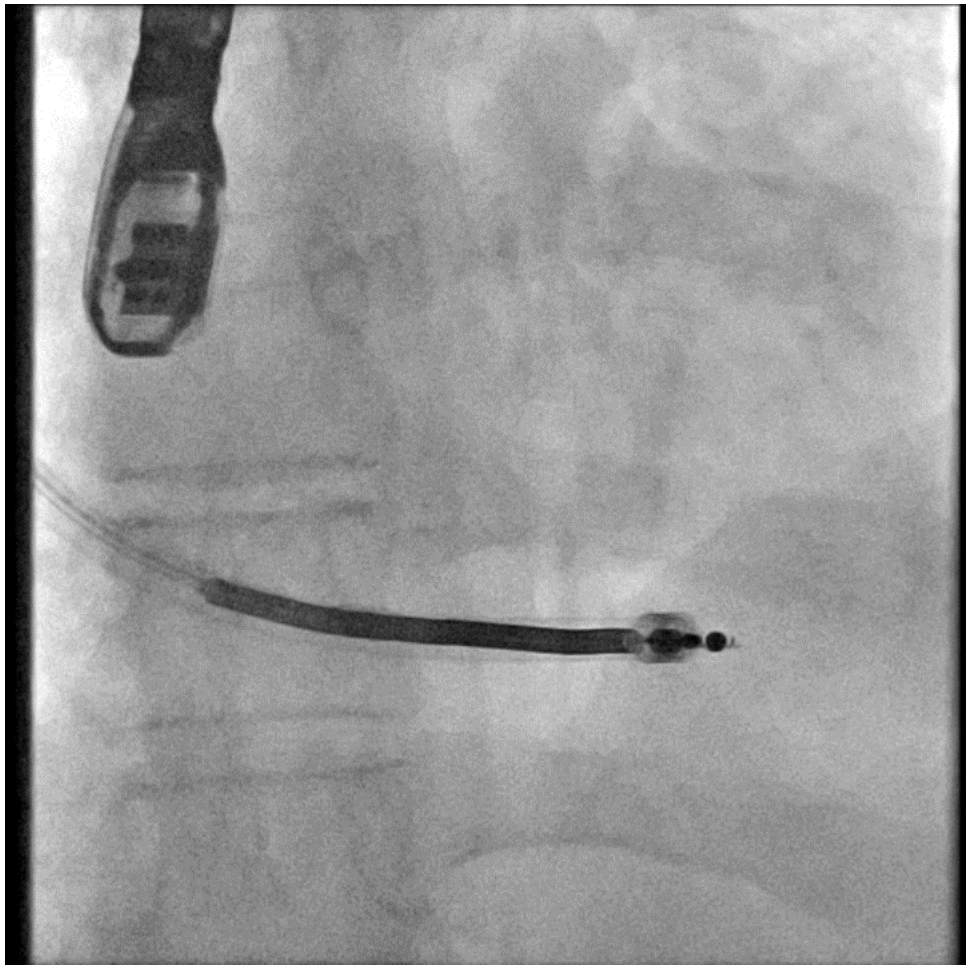

TEE
X8-2t
19Hz
13cm
2D
58%
C 50
P Aus
Allg
FD
48%
6767Hz
WF 609Hz
4.4MHz
G
P
R
0
0
180
TIS0.6
MI 0.3
M4 S4
+58.7
-58.7
cm/s
X3
PAT T: 37.0C
TEE T< 37.0C
90 /min

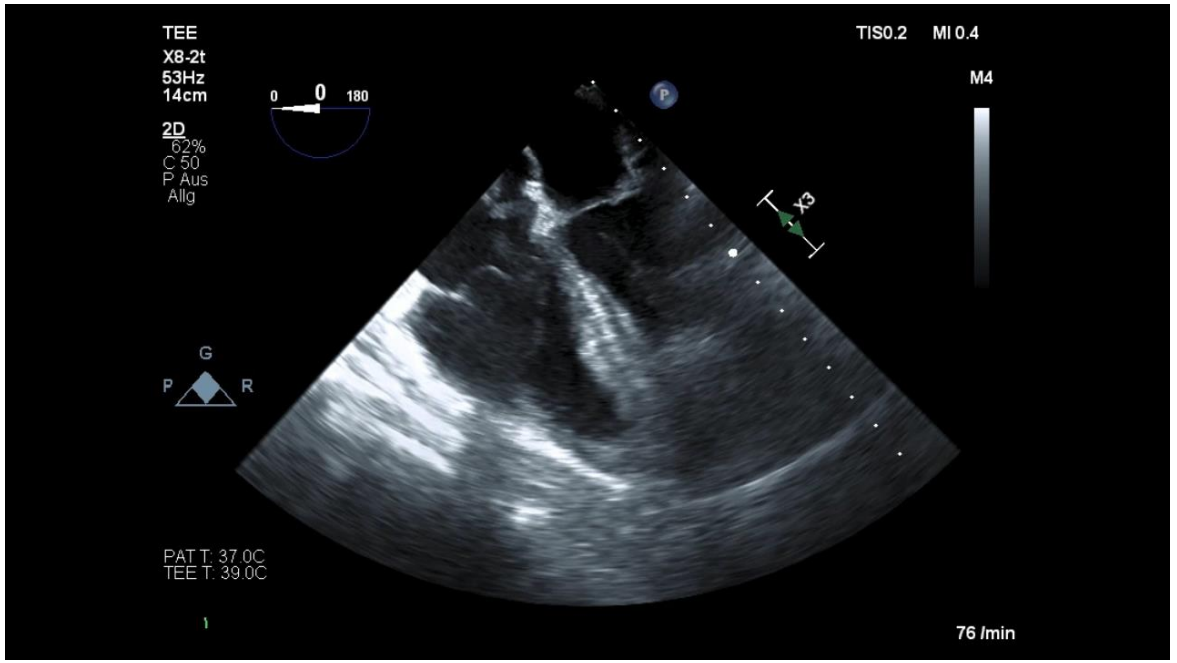
MANAGEMENT




TEE
X8-2t
53Hz
10cm
2D
59%
C 50
P Aus
Allg
0
107
180
TIS0.2
MI 0.4
M4
X3
G
P
R
PAT T: 37.0C
TEE T: 38.4C
62 /min

OUTCOME

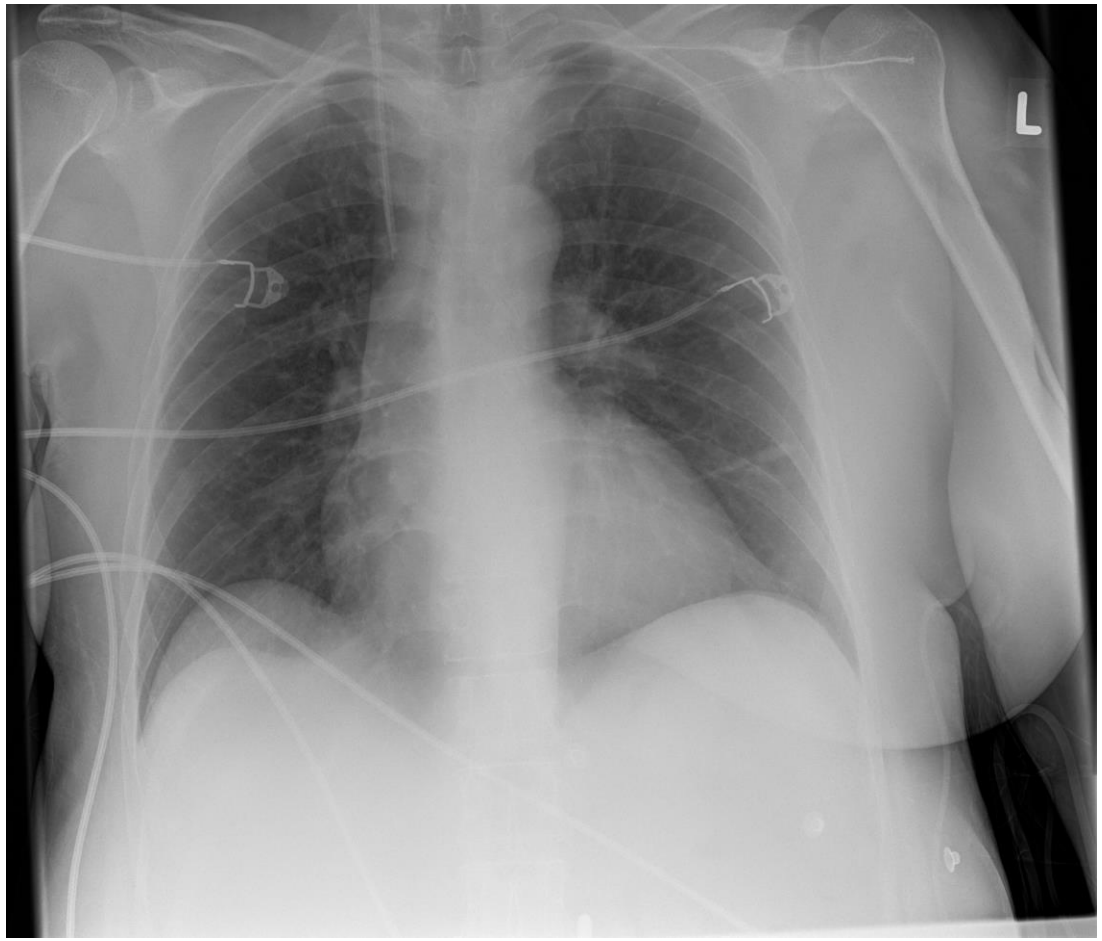



TEE
X8-2t
53Hz
14cm
2D
62%
C 50
P Aus
Allg
0
0
180
TIS0.2
MI 0.4
M4
X3
G
P
R
PAT T: 37.0C
TEE T: 39.0C
76 /min

OUTCOME

- Extub. im Saal
- Problemloser postop. Verlauf
- Blutkulturen/Sondenspitzen steril
- Infektparameter fallend
- LVEF gut
- Keine Rhythmusereignisse
- Verlegung am 06. POD ins Heimat-KH

  zur weiteren i.v. Antibionse
- Follow-up 13.09. (Hausarzt)
  - Guter AZ, keine Antibiose, kein Hinweis auf Endokarditis
  - Gute EF, keine Beschwerden, keine Device-Reimpl. geplant
  - Palliative Chemotherapie via Port



TAKE-HOME MESSAGE

- Auch große Vegetationen > 3 cm lassen sich mit dem Laser behandeln
- Proceduraler Erfolg (=komplette Sondenentfernung) sehr häufig
- Komplette Entfernung der Vegetation nicht immer möglich
- Klinischer Erfolg abhängig eher vom Ausmaß der Sepsis als von der Größe der Vegetation

- Alternativen: Mechanische Schleusen, ±AngioVAC, offene Entfernung, ggf. MIC

- Wir brauchen mehr Daten über einzelne Methoden und Langzeitverlauf!