Welcome to

PETER LAZIC GMBH

Aneurysm-Clip Systems
Aneurysm-Clip-System

• PETER LAZIC GMBH
  – Specialist for Aneurysm-Clip System
• What is an intracranial Aneurysm?
• Aneurysm Clip Systems
  – The different systems
  – Intend of use
• Yasargil Aneurysm-Clip System
• L-Aneurysm-Clip System
• Common features
  – Yasargil and L-Aneurysm-Clip
PETER LAZIC GMBH

• Peter Lazic was 20 years developing and producing Aneurysm-Clip for Aesculap

• In 1988, Peter Lazic started a foundation for the 1990 established, „Peter Lazic Microsurgical Instruments GmbH“
  – Over 37 years knowledge in developing and producing Aneurysm-Clip Systems
  – 11 employees are specialized in producing A-Clips
  – 13,000 pcs. sold Clips 2004

• Biggest OEM-Producer for Aneurysm-Clip-System

• No. three in the World after Aesculap and Mizuho (Sugita Clip)
• Quality
  
  – Peter Lazic Aneurysm Clips guarantee
    • precision, dependability and safety
      – Never had a failure in the product
  
  – since 1996, Quality Management according to ISO 9001 and 93/42/EWG, since 2005 certified acc. to 13485-2003 (CE-approved)
What is an intracranial Aneurysm?

- Intracranial Aneurysm are expansion of blood vessels in different form and sizes

- The size varied form 1mm up to 10 cm and are categorized in three groups:
  - small Aneurysm 1 – 10 mm
  - big Aneurysm 10 – 25 mm
  - giant Aneurysm 40 – 100 mm

- Accruement of an Aneurysm
  - congenital debility of the vessel septum
  - inflammatory chance of vessel or injury of the vessel septum
What is an intracranial Aneurysm?

- Aneurysm forms
  - expanded bleb Aneurysm
  - sack or aciniform Aneurysm
  - Aneurysm on vessel outlet
What is an intracranial Aneurysm?

- Localization and frequency
  - 76% in the front part of Circulus Arteriosus Willis
  - 24% in the rear part

- Concerned persons
  - In investigations of persons without symptoms or referring to an illness, at 6% of the examined could an aneurysm be diagnosed
  - projected on the total population, 350 million humans would suffer at a not discovered intracranial Aneurysm
Aneurysm Clip System

• The different Aneurysm Clip Systems
  – Yasargil Aneurysm Clip System
    • Peter Lazic GmbH / Aesculap (Germany)
  – Sugita Aneurysm Clip System
    • Mizuho / Japan \(\textit{Not compatible to other Systems!}\)
  – Perneczky Aneurysm Clip System
    • Peter Lazic Producer / Distribution Zeppelin ltd.
    • \(\textit{Not compatible to other Systems!}\)
  – L-Aneurysm-Clip System \(\textit{NEW}\)
    • Peter Lazic GmbH
    • \(\textit{Not compatible to other Systems!}\)
  – Mc Fadden and Sundt Aneurym Clips
    • Codman / USA
    • \(\textit{Not compatible to other Systems!}\)
Aneurysm Clip System

• Intend of use
  – Aneurysm Clips are intended for occlusion of blood vessels and cerebral aneurysms.

• Difference between permanent and temporary Clips
  – Permanent Clips for permanent occlusion, stay in the patient's body (implant)
    • Closing force: 110 and 200 grams
    • Clip as substitute for vessel septum
  – Temporary Clips for temporary occlusion, their mechanical and technical characteristics are only for temporary applications
    • Closing force: 70 and 130 grams
    • short use for ligature of end to end / end to side anastomosis
    • as Pilot – Clip
    • to push back the blood into arteries
Yasargil Aneurysm Clip System

- 1. Yasargil Aneurysm Clip
- 2. Applying forceps for opening the Clip
Yasargil Aneurysm Clip System

- Yasargil Standard vs. Yasargil Mini Clip
  - size of feather / spring geometry
    - Different applying forceps!!
  - Standard Yasargil Clip
    - Blades between 5 and 25 mm
    - Opening width 3 – 13.3 mm
    - form “normal” and fenestrated in 3.5 and 5 mm
  - Mini Yasargil Clip
    - Blades between 3 – 7 mm
    - Opening width 3.3 – 7 mm
    - for small Aneurysm
Yasargil Aneurysm Clip System

• Materials acc. to ISO 9713 for intracranial Aneurysm Clip
  – Titan – Ti 6Al 4V acc. to ISO 5832-3
  – Phynox acc. to ISO 5832-7

• Material properties
  – high mechanical solidity
  – excellent tissue compatibility
  – secure lock of the vessel
  – nonmagnetic (tested up on 1,5 Tesla, MR-compatible)
  – suitable in the best possible way of implant material
  – safety against overstrain

• Difference Phynox vs. Titan
  – better biocompatibility and non ferromagnetic
    • (same forms available)
Yasargil Aneurysm Clip System

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<th>Permanent</th>
<th>Temporary</th>
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<tr>
<td>Size / Material</td>
<td>Color</td>
<td>Color</td>
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<tr>
<td>Standard / Titan</td>
<td>blue</td>
<td>gold</td>
</tr>
<tr>
<td>Mini / Titan</td>
<td>pink</td>
<td>gold</td>
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<tr>
<td>Standard + Mini / Phynox</td>
<td>silver</td>
<td>gold springs</td>
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Yasargil Aneurysm Clip System

• Usage of Appliers
  – MINI / Standard
    • Mini and Standard Clips may only be operated with the respective instruments!
    • When the correct appliers are not used, the clip’s closing force will damage: THIS WILL CAUSE FUNCTIONAL DISTURBANCE OR AN OVERBENDING OF THE CLIP!

  – Phynox / Titan
    • Appliers for titanium Clip are blue or pink colored
      – If different material were used, corrosion might occur

Example for MINI
L - Aneurysm - Clip System
L - Aneurysm - Clip System

• Why choose L-Aneurysm Clip System?
  – Benefits L-Aneurysm-Clip vs. Yasargil-Clip

• Application and Opening Mechanism
  • Largest view to surgery site
    – the improved inner opening Mechanism allows the surgeon an optimal view in the application of the clip with the Applying Forceps
    – Eliminates the blind spot during the application of the clip by the applying Forceps.
L - Aneurysm - Clip System

• WORKING END OPENING
  – New design creates largest working end opening in the Titanium Aneurysm market worldwide.
    • provides improved application of the aneurysm clip
    • eliminates possible rupture at the application
L - Aneurysm - Clip System

• Applying forceps
  – The Mini and Standard L-Aneurysm-Clip models have one applying forceps.
    • Eliminates possibility of error in choosing the wrong applying forceps.
      (Custom applying forceps for Mini Clips are available)

- New improved admission from the clip onto the applying forceps allows multiple variations in the positioning of the Clip.
  • Positioning from +/- 50° of the L-Clips possible
  • Removal of the L-Clips in various angles
  • The special pick up geometric of the clip provides a self centring function.
  • Controlled removal of the applied Aneurysm Clip.
L - Aneurysm - Clip System

• Materials

  – The L-Aneurysm –Clip is 95 % Pure Titanium according to ISO 5832-2
    • Improved biocompatibility
    • Reduced reflection during CT and MRT

  – The remaining 5% belong to a specialty titanium alloy according to ISO 5832-3
    • Guaranties a secure and stable closing pressure

  – Both materials performing to the highest level and are MRT compatible and are not ferromagnetic.
    • Both materials are reference by ISO 9713 for self closing Aneurysm Clips.
L - Aneurysm - Clip System

• Closing Force
  – Standard-Clips (permanent): 150-180 gms (+/- 7,5% tolerance)
  – Standard-Clips (temporary): 90-130 gms (+/- 7,5% tolerance)
  – Mini-Clips (permanent): 110-130 gms (+/- 7,5% tolerance)
  – Mini-Clips (temporary): 70 – 90 gms (+/- 7,5% tolerance)

• Color coating

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Common Feature

• Closing force:
  • The closing force is measured at one third of the jaw length and an opening of 1 mm.
  • The final quality control of the clip is effected by a special developed microprocessor - controlled measuring equipment.
  • The closing force is indicated exactly within a certain tolerance.
  • By the help of a special software program we assure that before the clip passes the final quality control its closure force is fixed.
  • As a consequence we exclude any kind of manipulation.
  • All relevant technical data is stored during the control procedure and printed on the label.
Common Feature

• Serial number
  – Each lip is coded with an individual serial number – marked by laser technology. The serial number guarantees a detailed follow-up of
    • the whole production process
    • the closure force
    • from raw material to final product

• Jaw – Profile
  – The rounded, pyramid-like structure is stamped into the jaws and prevents sharp edges with could perforate an aneurysm. No edges or burrs by additional rounding of structures that border the clip outer side. The cross-like structure of inner jaws pyramid surface doubles the tissue-holding area.
THANK YOU VERY MUCH FOR YOUR ATTENTION