



pAVK – Neues und Bewährtes Unterschenkel-PTA

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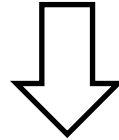
Institute für Radiologie und interventionelle Therapie

Klinika Am Urban, im Friedrichshain und Hellersdorf

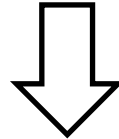
Berlin

pAVK: Unterschenkelangioplastie bei Diabetes

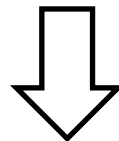
6 Mio. Diabetiker in Deutschland



270.000 davon mit Fußulkus/
150.000 Neuerkrankungen/Jahr



25.000 Amputationen/Jahr



Durch interdisziplinäre Wundzentren um
ca. 50% zu senken

Unterschenkel - PTA

Es geht um die Extremität!



Indikationen

- Stadium II b ?
- Stadium III
- Stadium IV !
- Diabetiker !
- Niereninsuffiziente !!!

Therapieprinzipien

- Zugang
- Rekanalisation
- Ballondilatation
- ggf. Stentinsertion
- Medikation

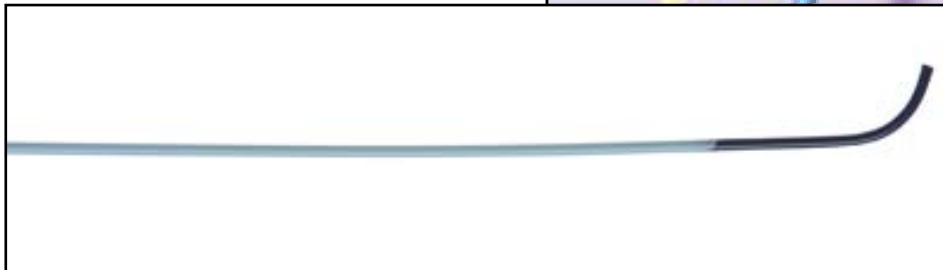
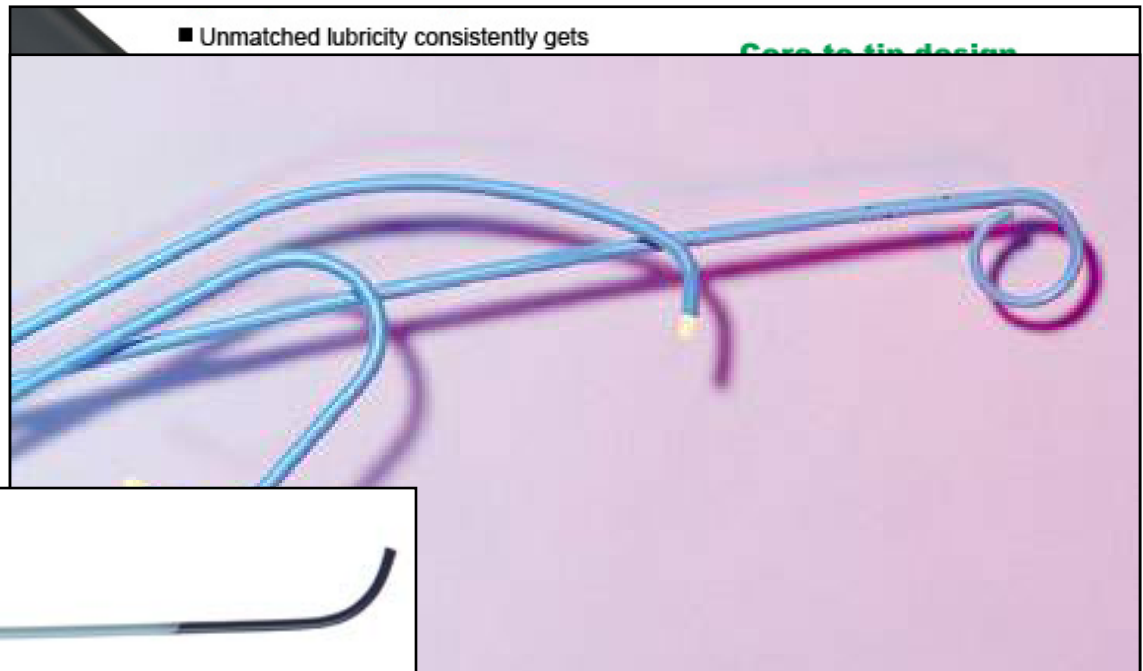
Therapieprinzipien

➤ Zugang

- ✓ antegrad ipsilateral
- ✓ contralateral – cross over
- ✓ brachial
- ✓ popliteal
- ✓ crural/pedal

Therapieprinzipien

➤ Rekanalisation: Draht und Katheter



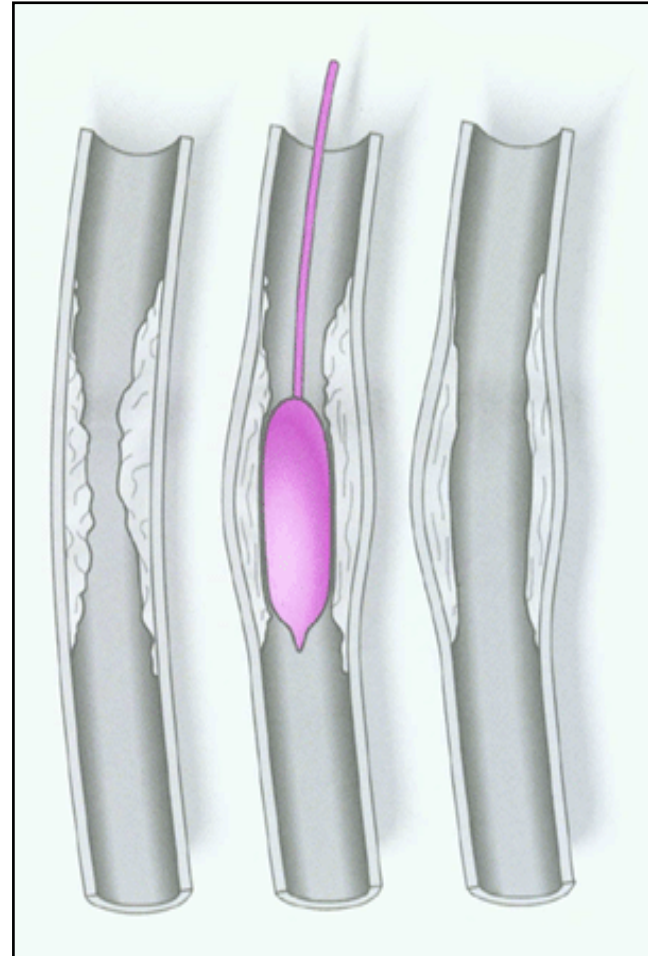
Therapieprinzipien

➤ Rekanalisation

- ✓ intraluminal
- ✓ subintimal

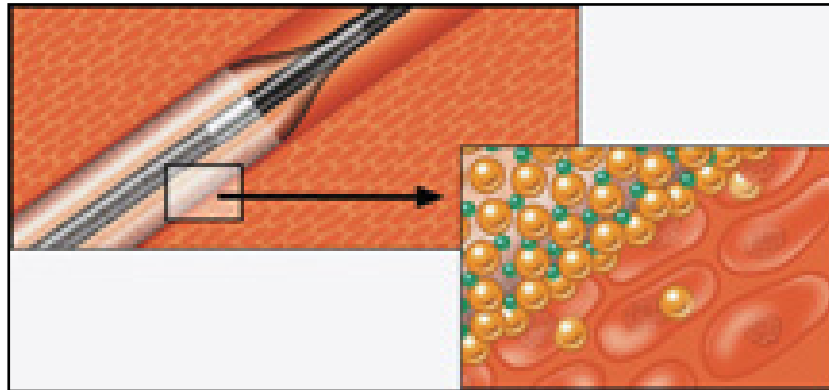
Therapieprinzipien

➤ Ballonangioplastie



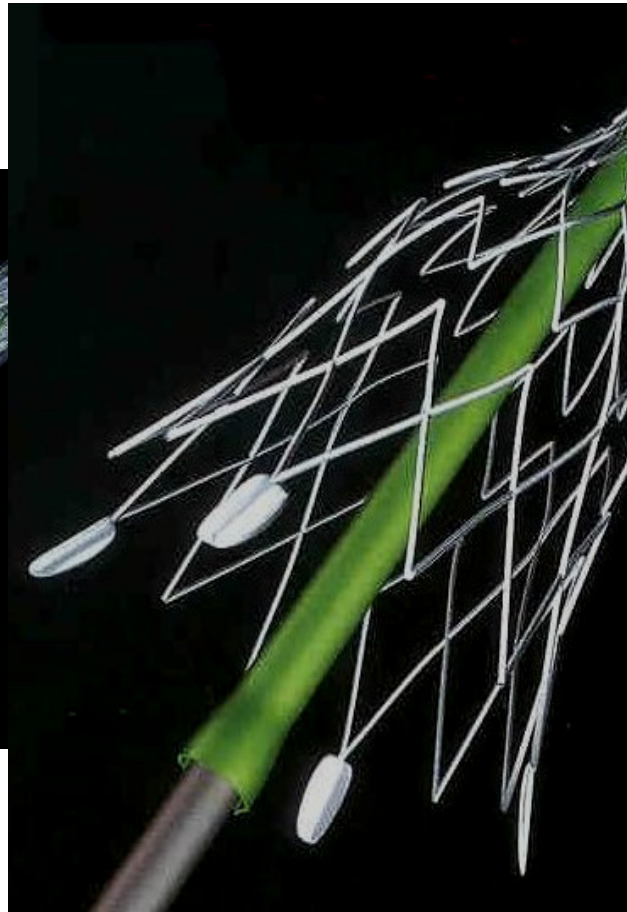
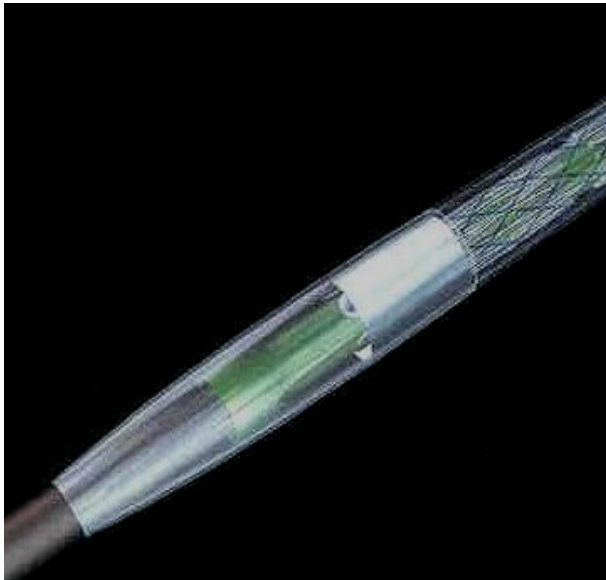
Therapieprinzipien

- Ballonangioplastie
- ✓ Drug Eluting Balloon



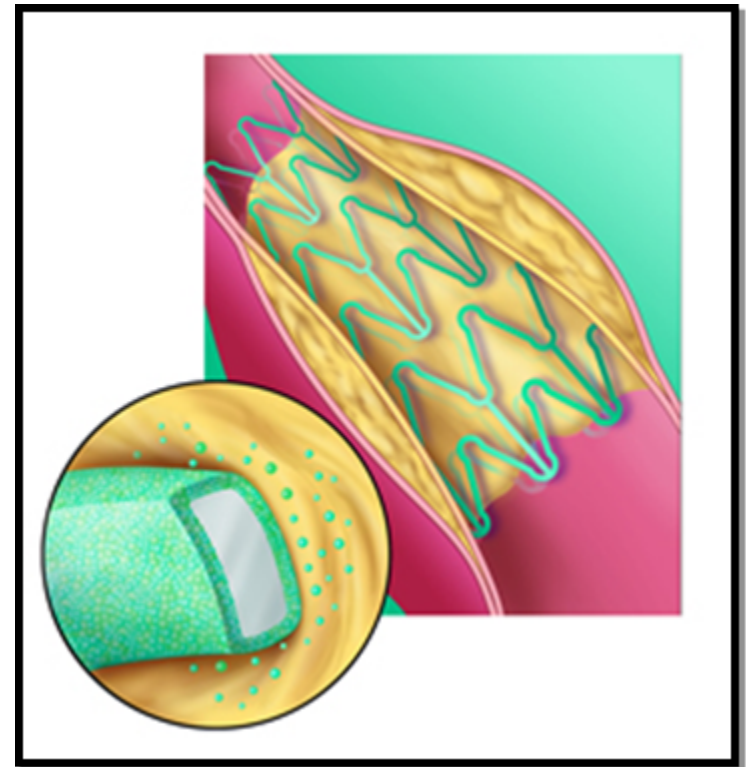
Therapieprinzipien

➤ Stentinsertion



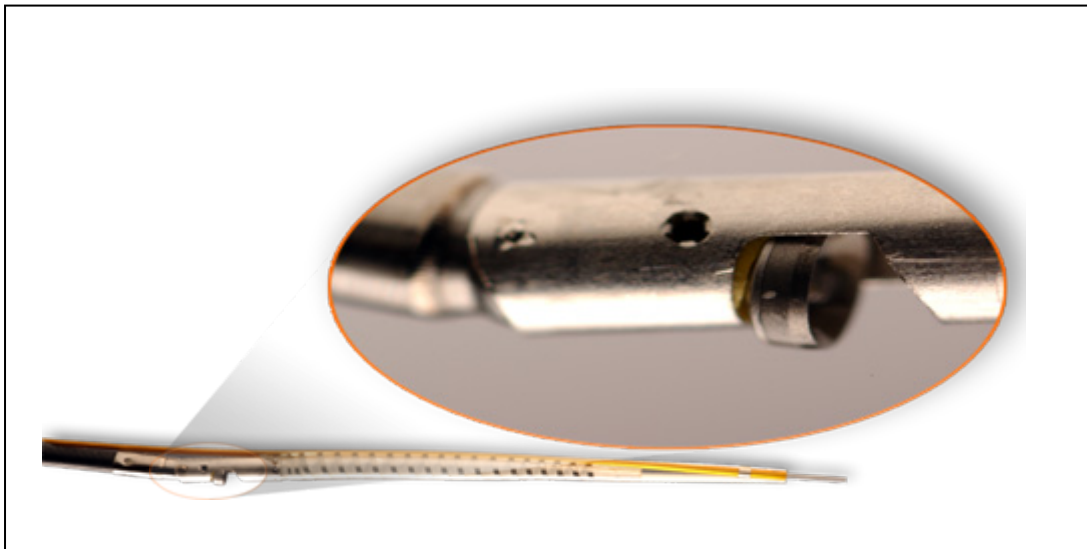
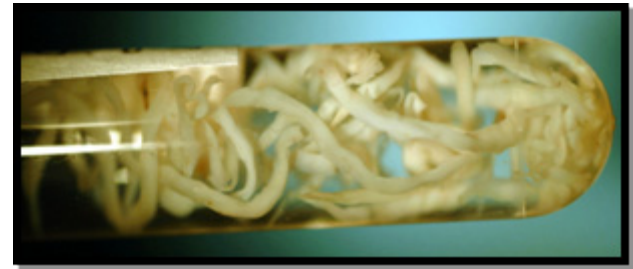
Therapieprinzipien

- Stentinsertion
 - ✓ Drug Eluting Stents



Therapieprinzipien

➤ Atherektomie



Therapieprinzipien

➤ Medikation

- ✓ ASS 100 mg/d
- ✓ Heparin 5000 I.E. i.a. / 100 I.E./kg KG
- ✓ Calciumkanalblocker (Nifedipin 10 mg s.l.)
- ✓ Prostanoiden (10 µg PGE₁ i.a.)
- ✓ Clopidogrel ?
- ✓ GP IIb/IIIa-Blocker ?
- ✓ Antikoagulation danach ?

Indikationen

- morphologische Stratifikation ?

TASC 2007

➤ 'A' lesions:

represent those which yield excellent results from, and should be treated by, endovascular means;

➤ 'B' lesions:

offer sufficiently good results with endovascular methods that this approach is still **preferred first**, unless an open revascularization is required for other associated lesions in the same anatomic area;

➤ 'C' lesions:

produce superior enough long-term results with open revascularization that endovascular methods should be used only in patients at high risk for open repair; and

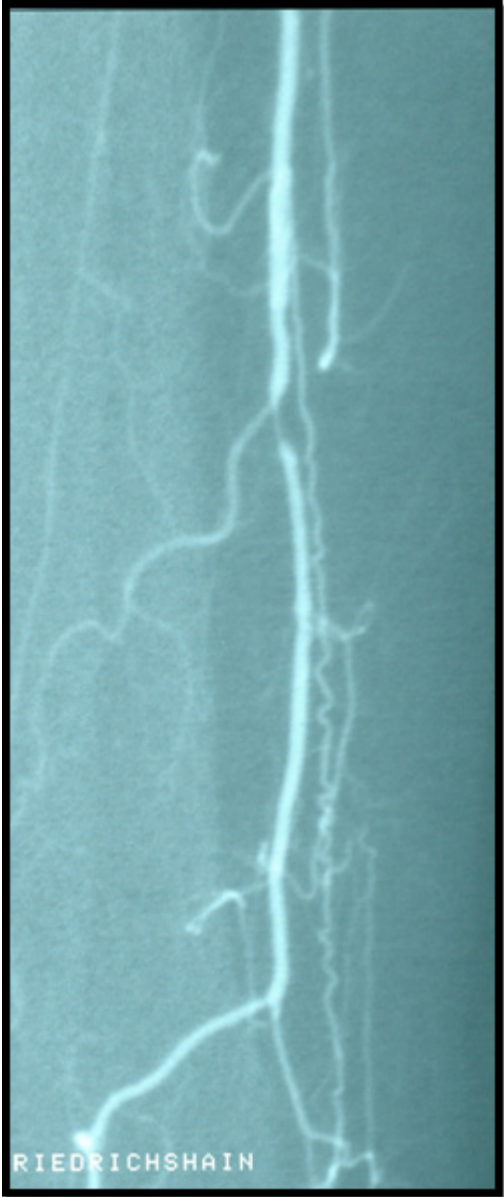
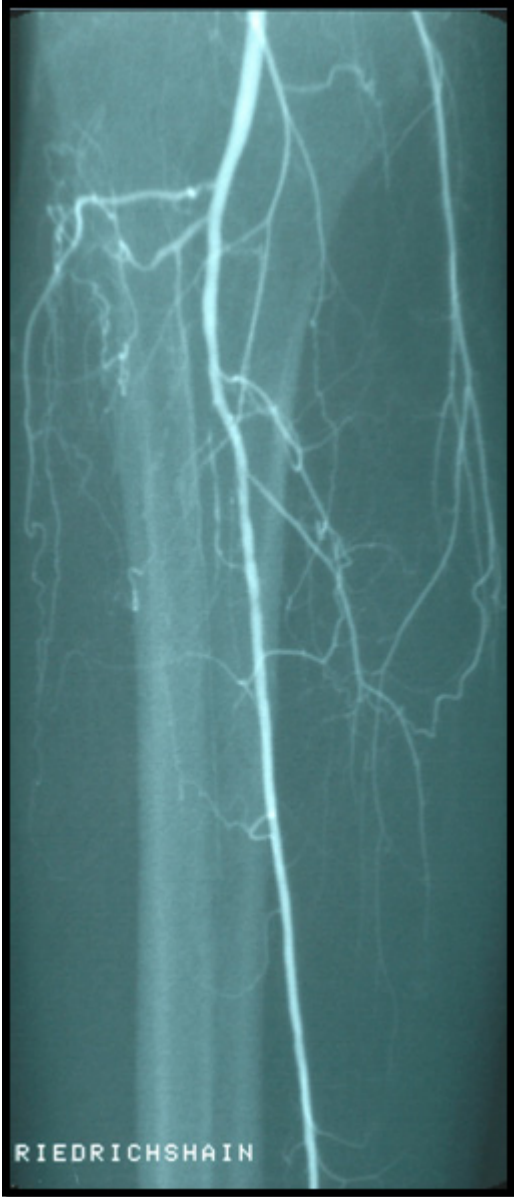
➤ 'D' lesions:

do not yield good enough results with endovascular methods to justify them as primary treatment. Finally it must be understood that most PAD requiring intervention is characterized by more than one lesion, at more than one level, so these schemes are limited by the necessity to focus on individual lesions."

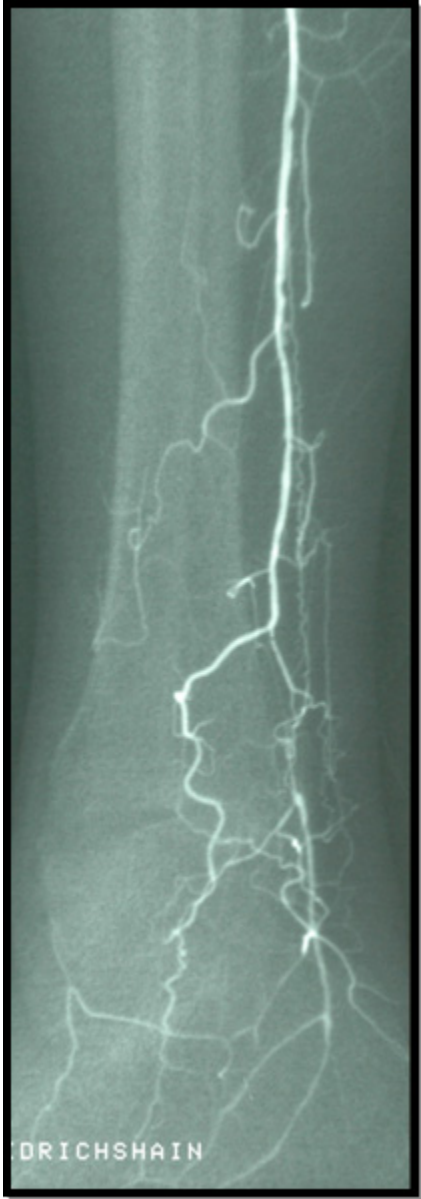
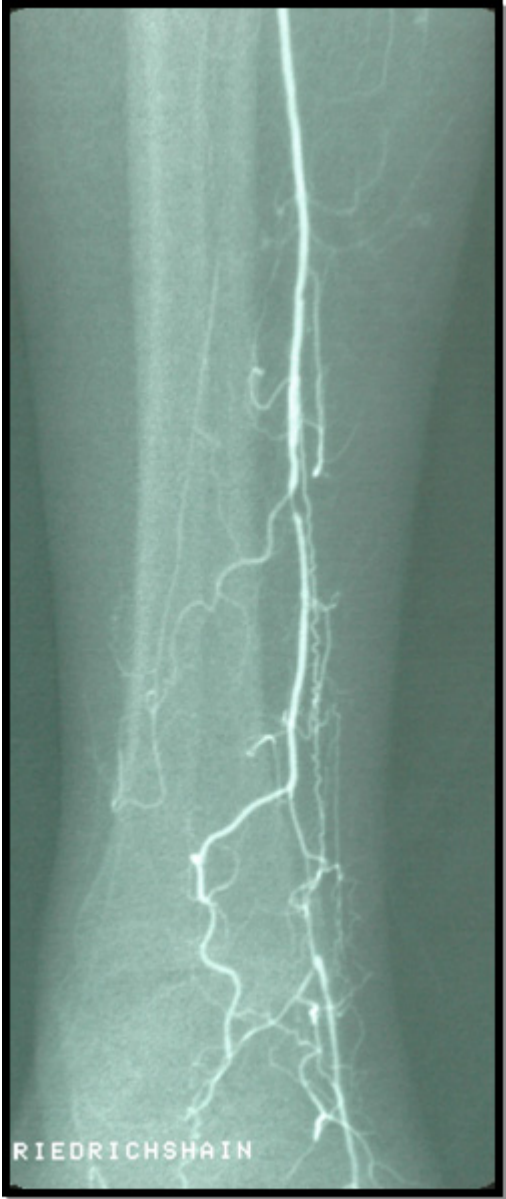
Unterschenkel – PTA : Fallbeispiel



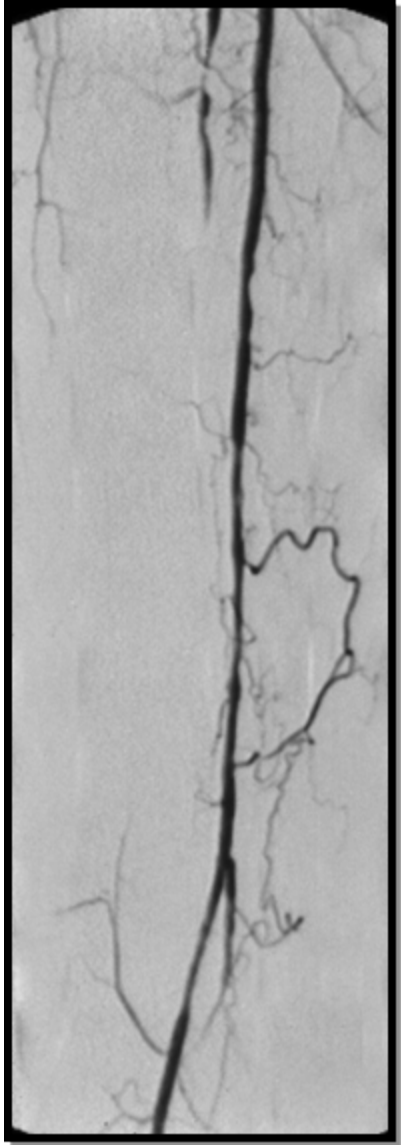
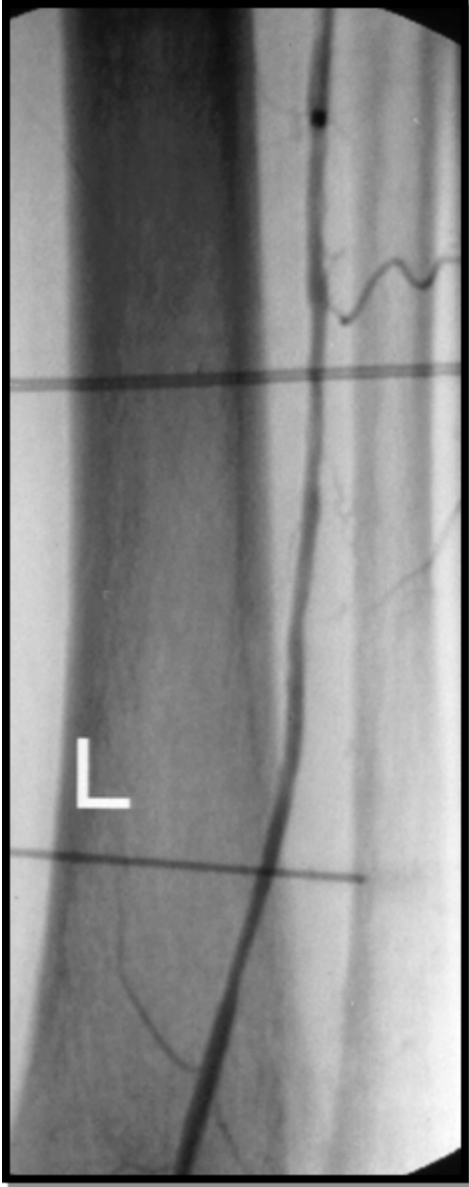
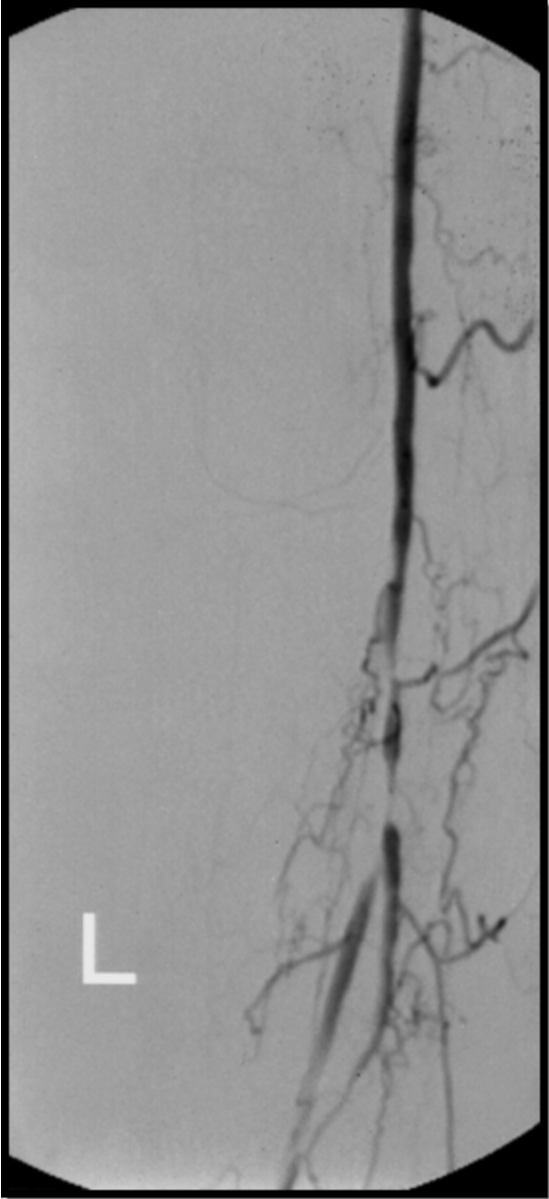
Unterschenkel – PTA : Fallbeispiel



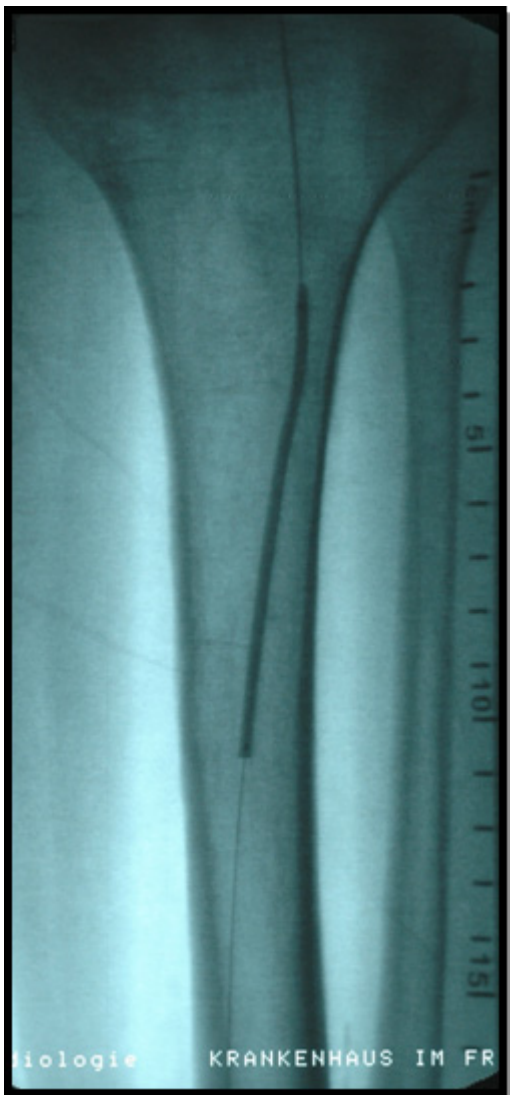
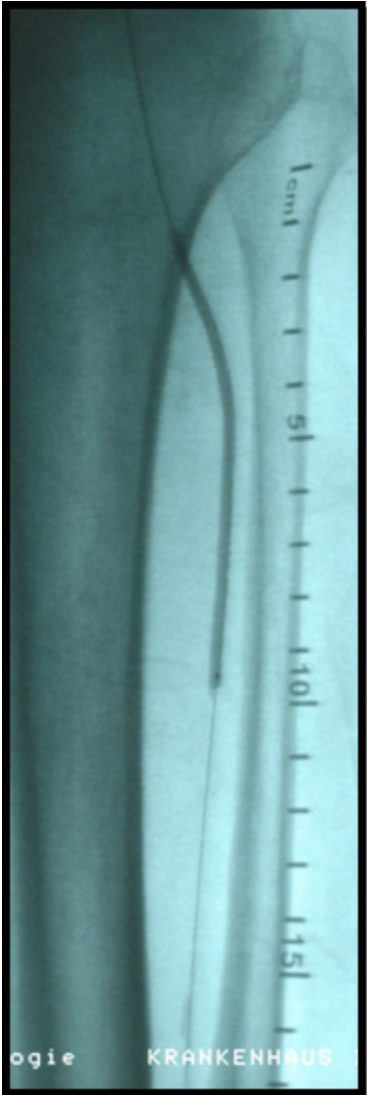
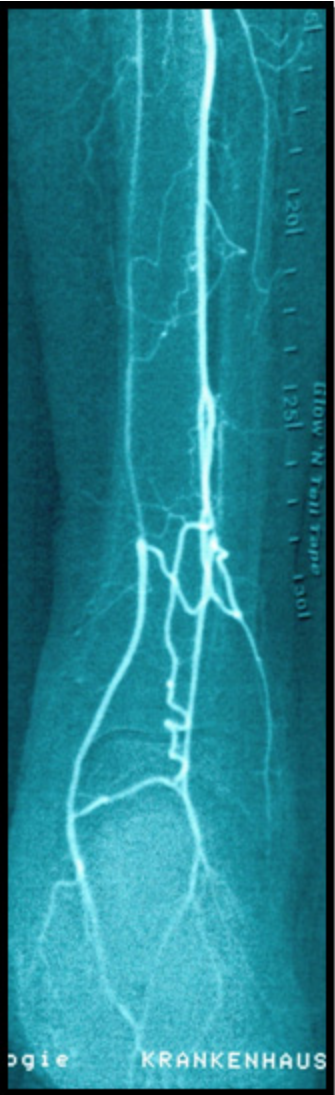
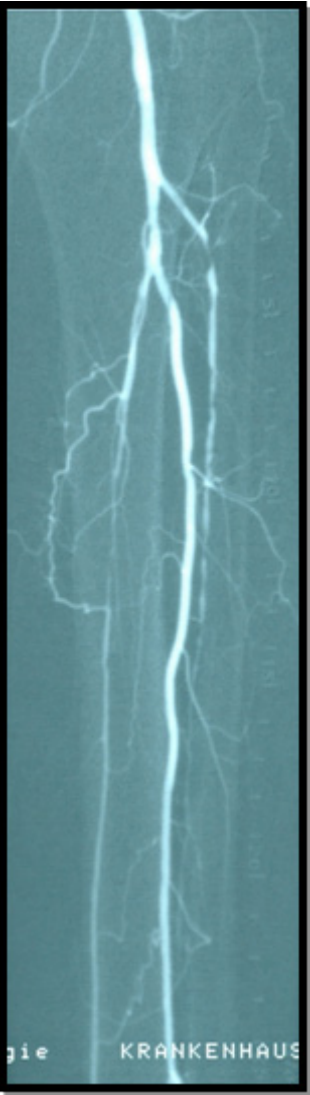
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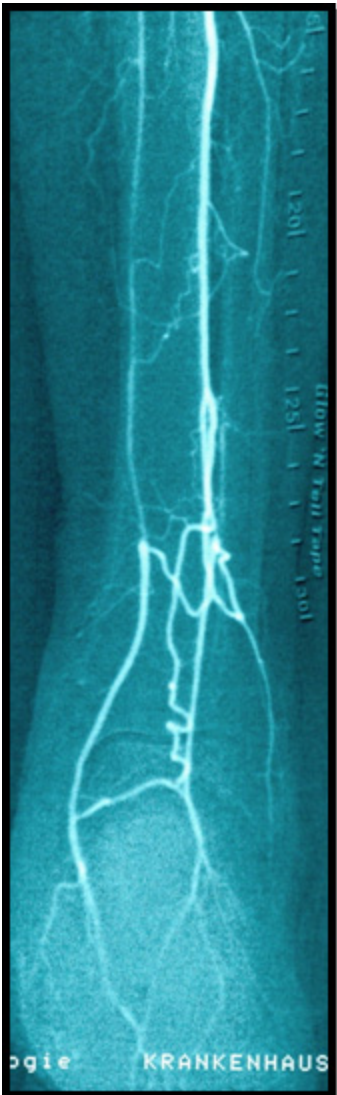
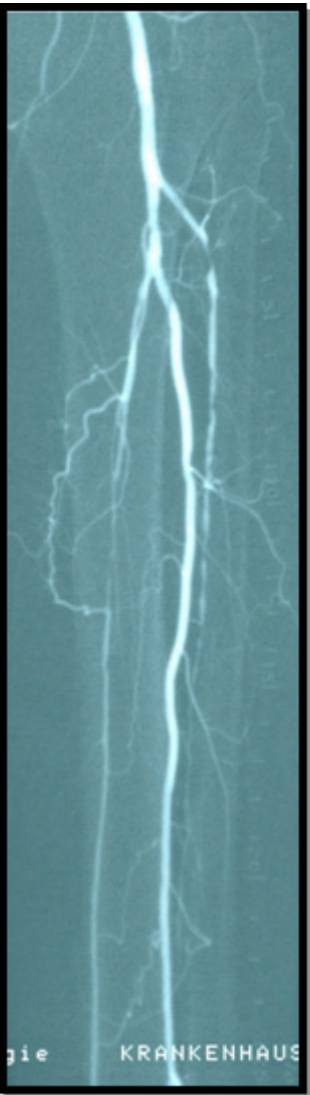
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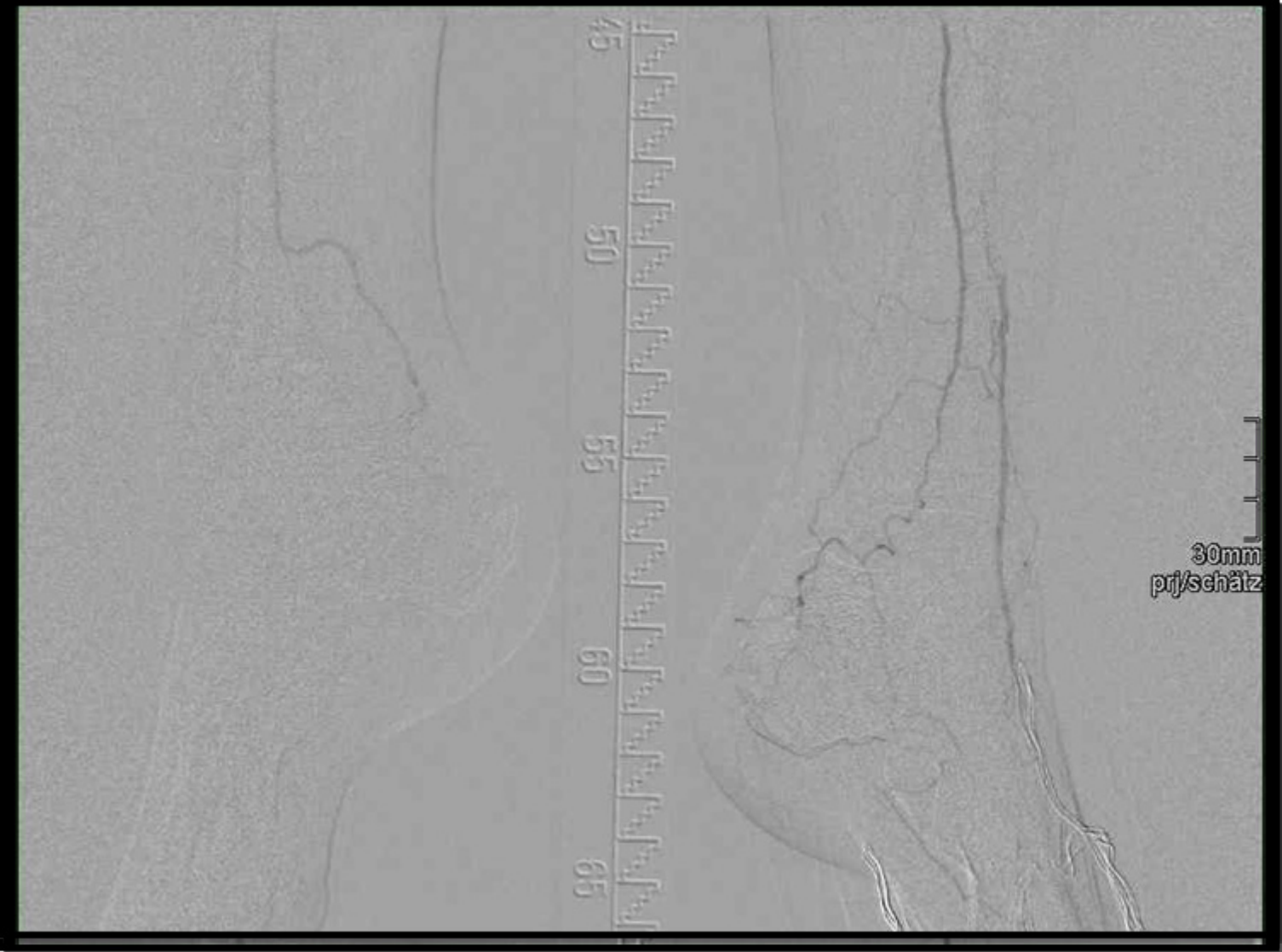
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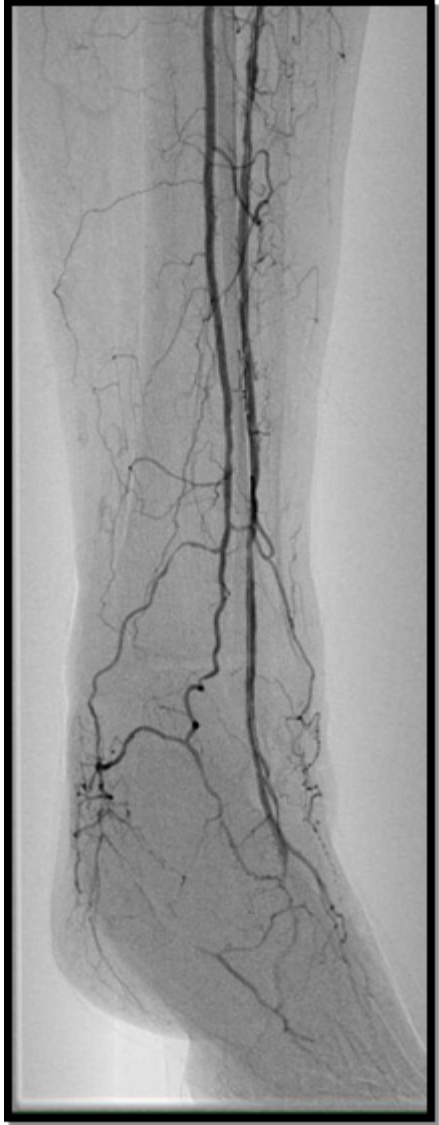
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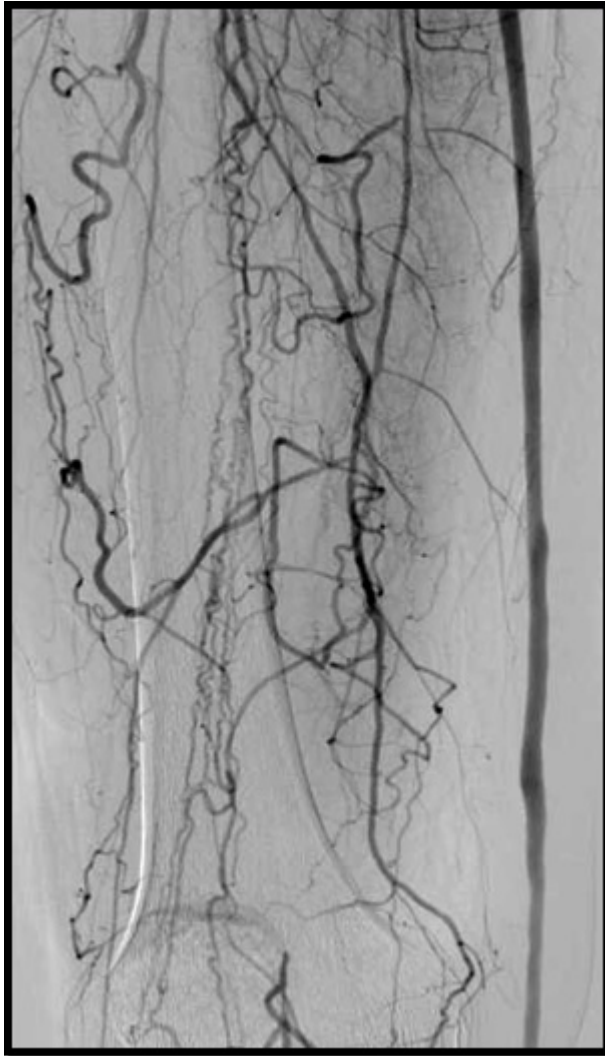
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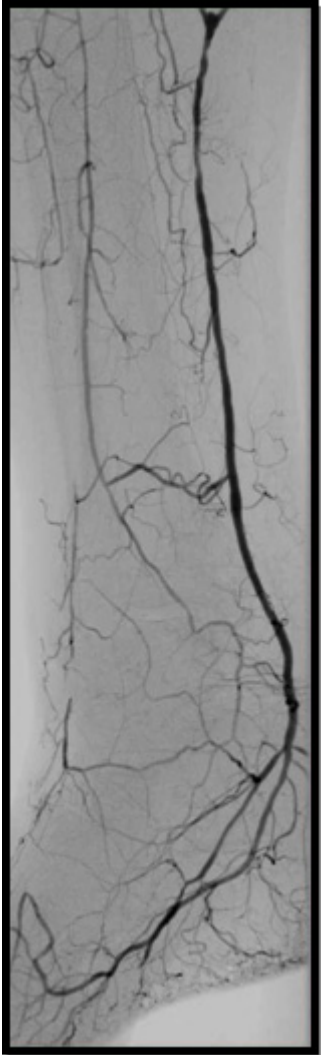
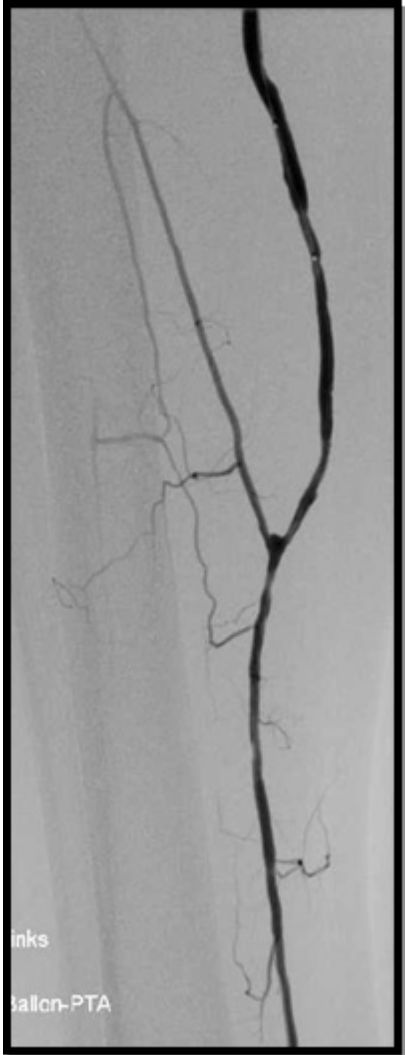
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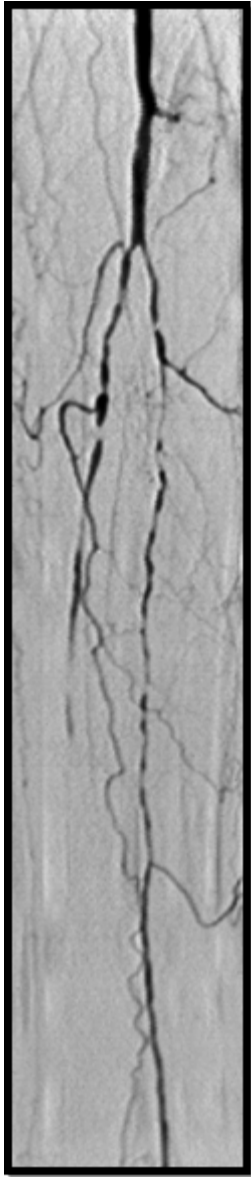
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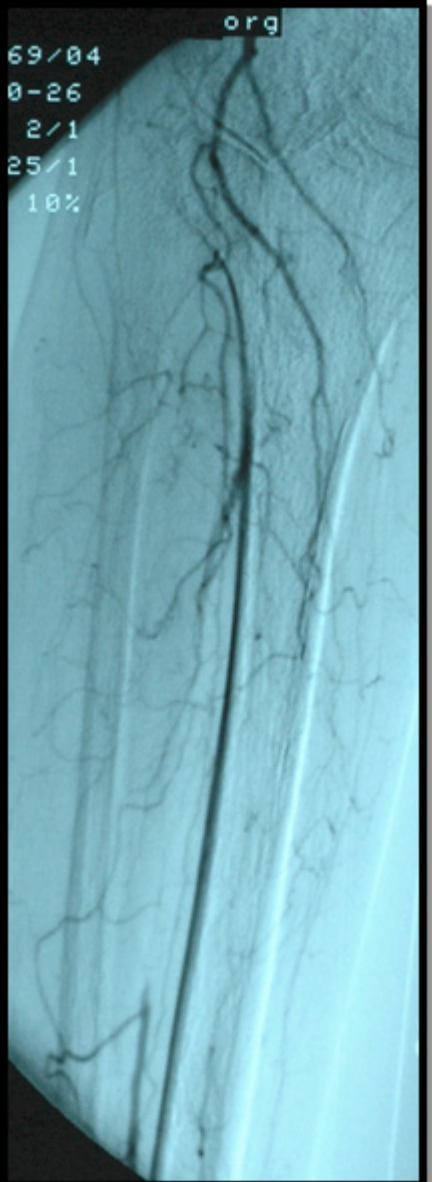
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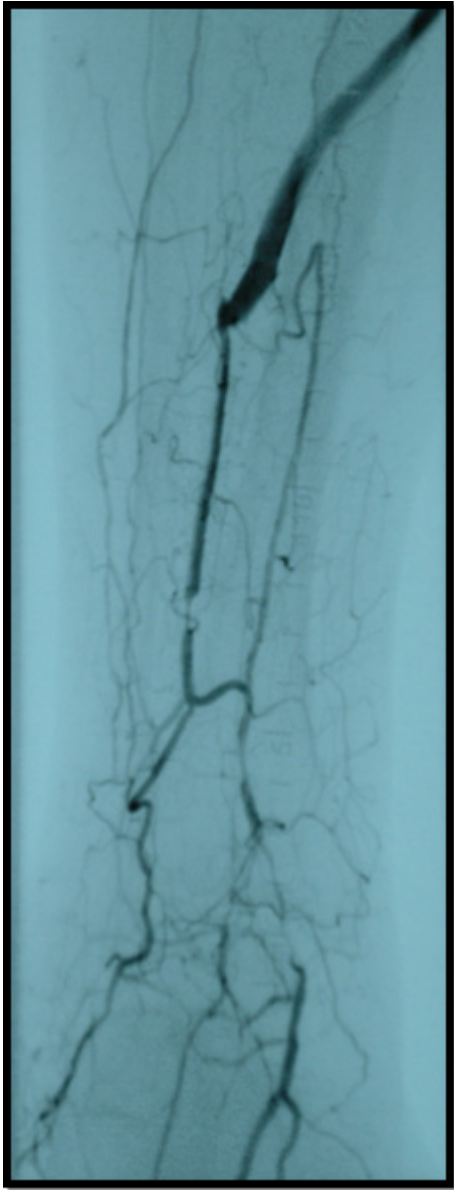
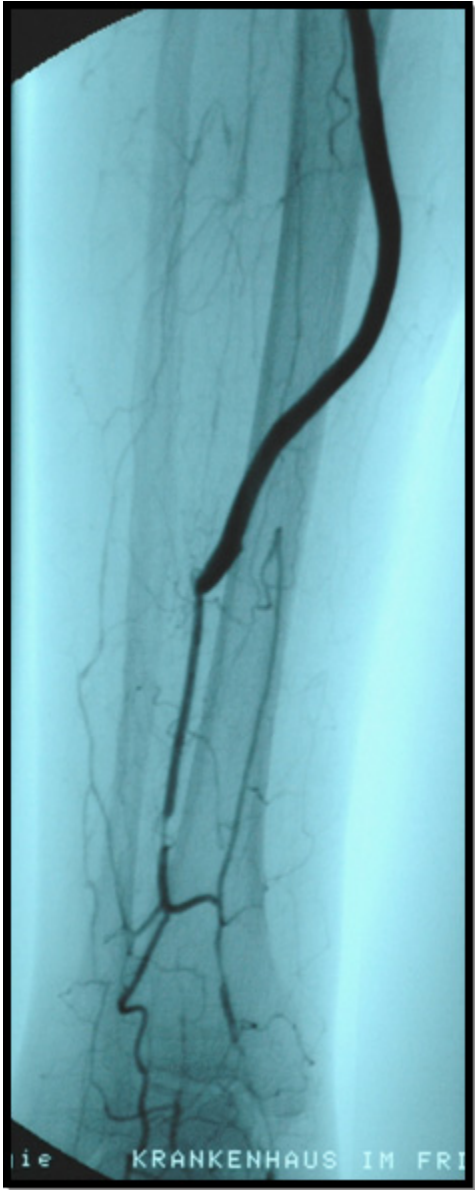
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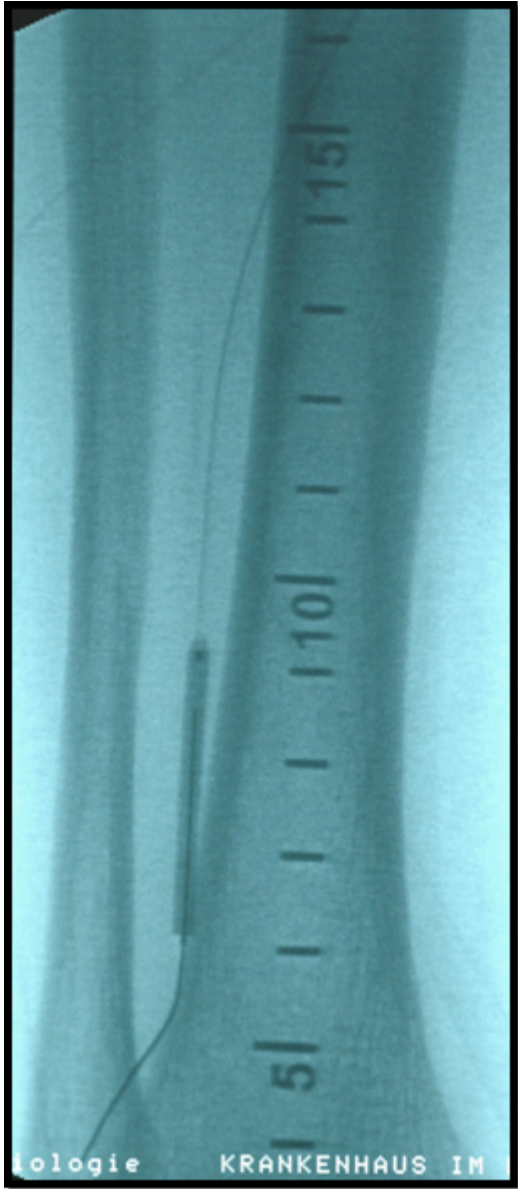
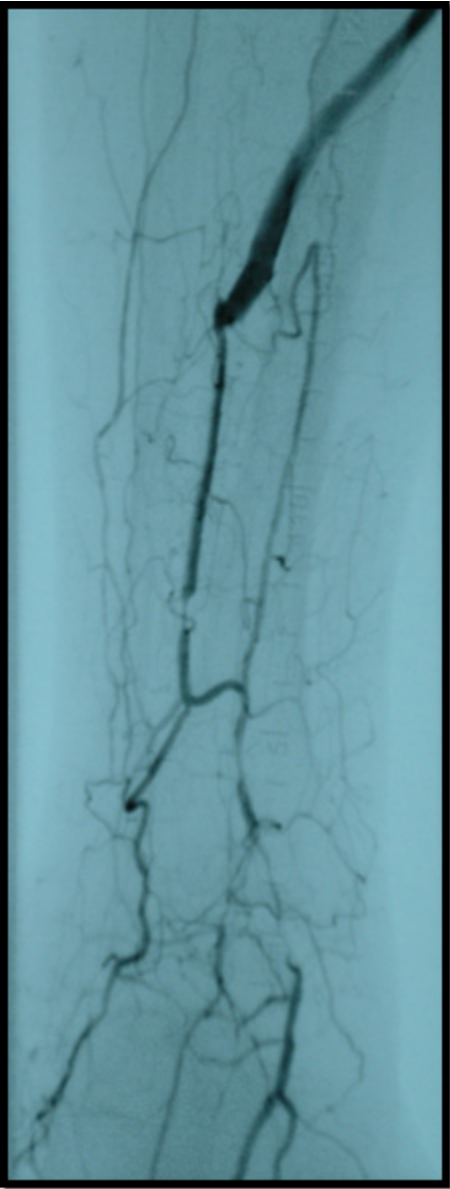
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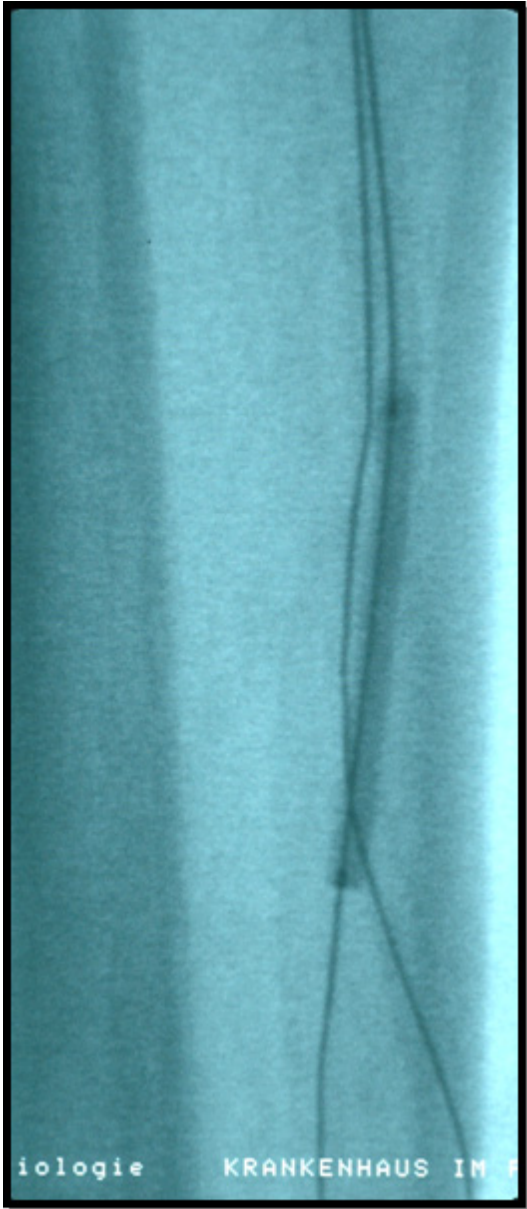
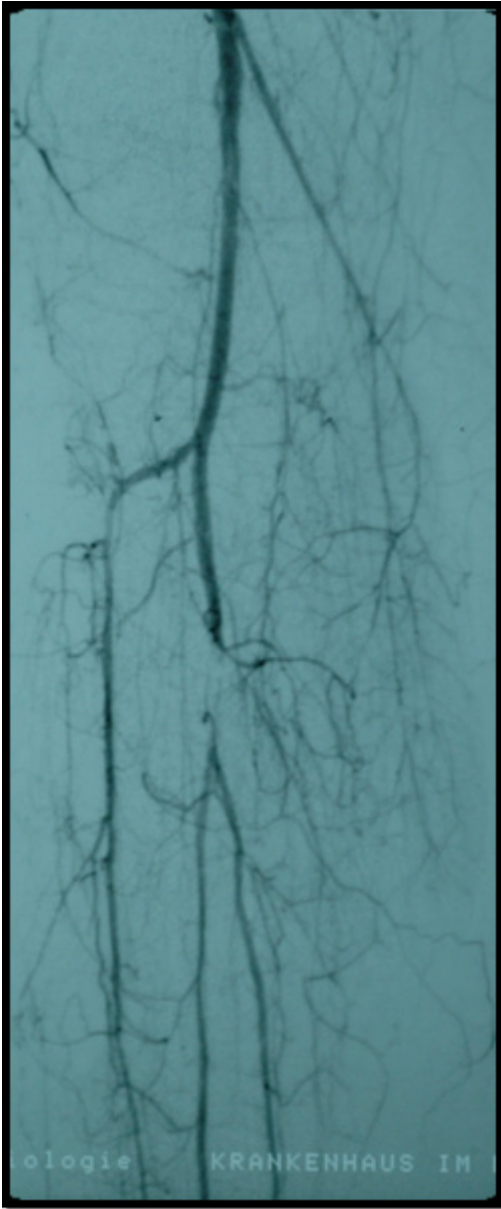
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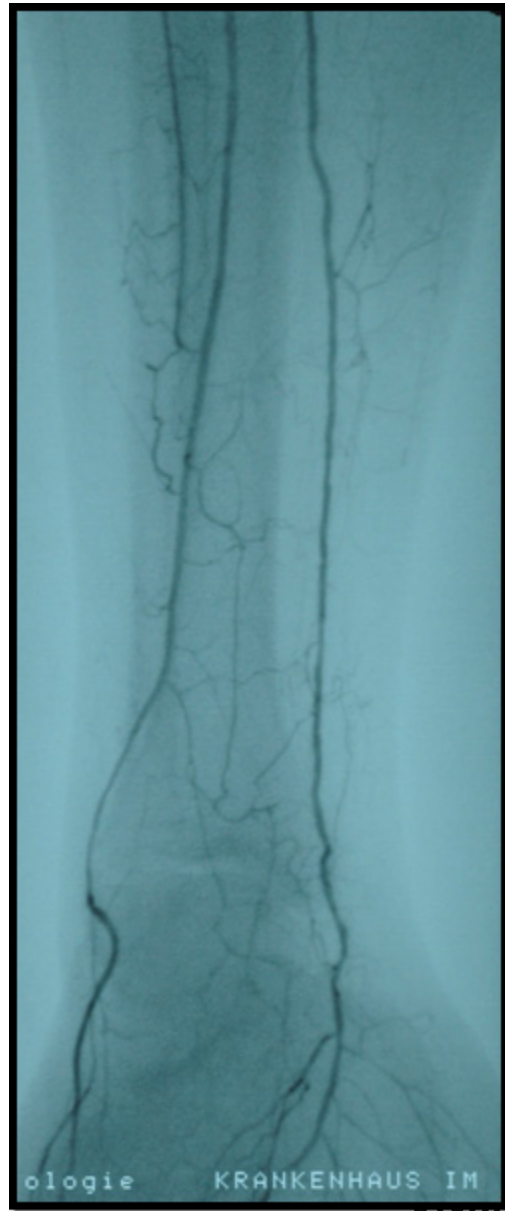
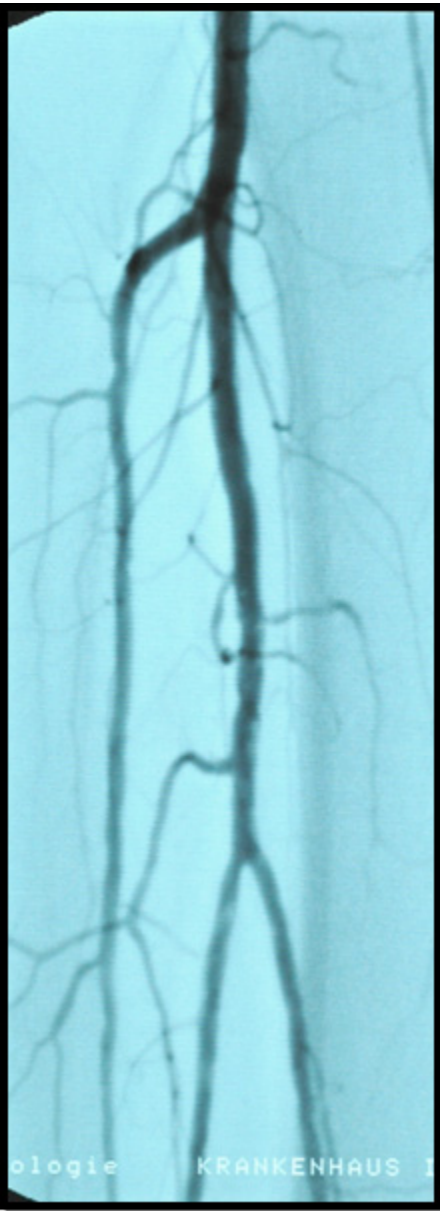
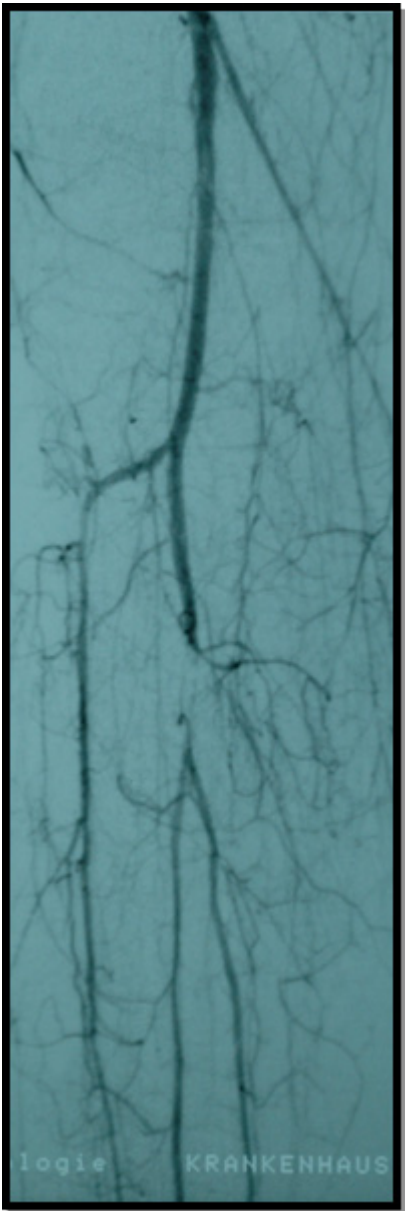
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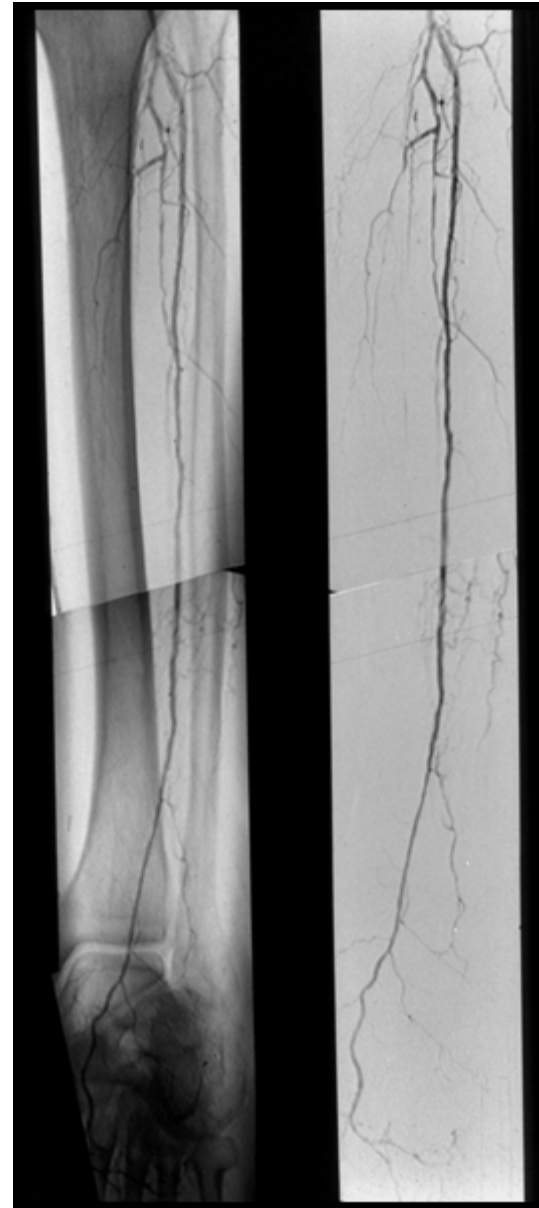
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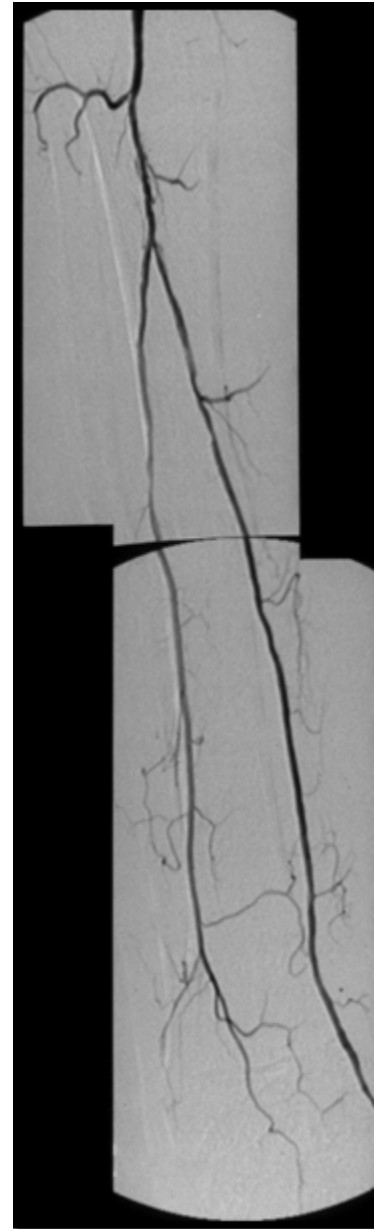
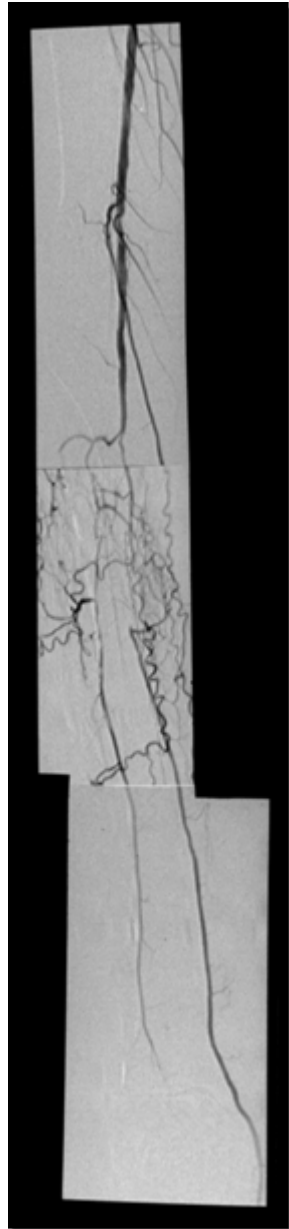
Unterschenkel – PTA : Fallbeispiel



Unterschenkel – PTA : Fallbeispiel



Unterschenkel – PTA : Fallbeispiel



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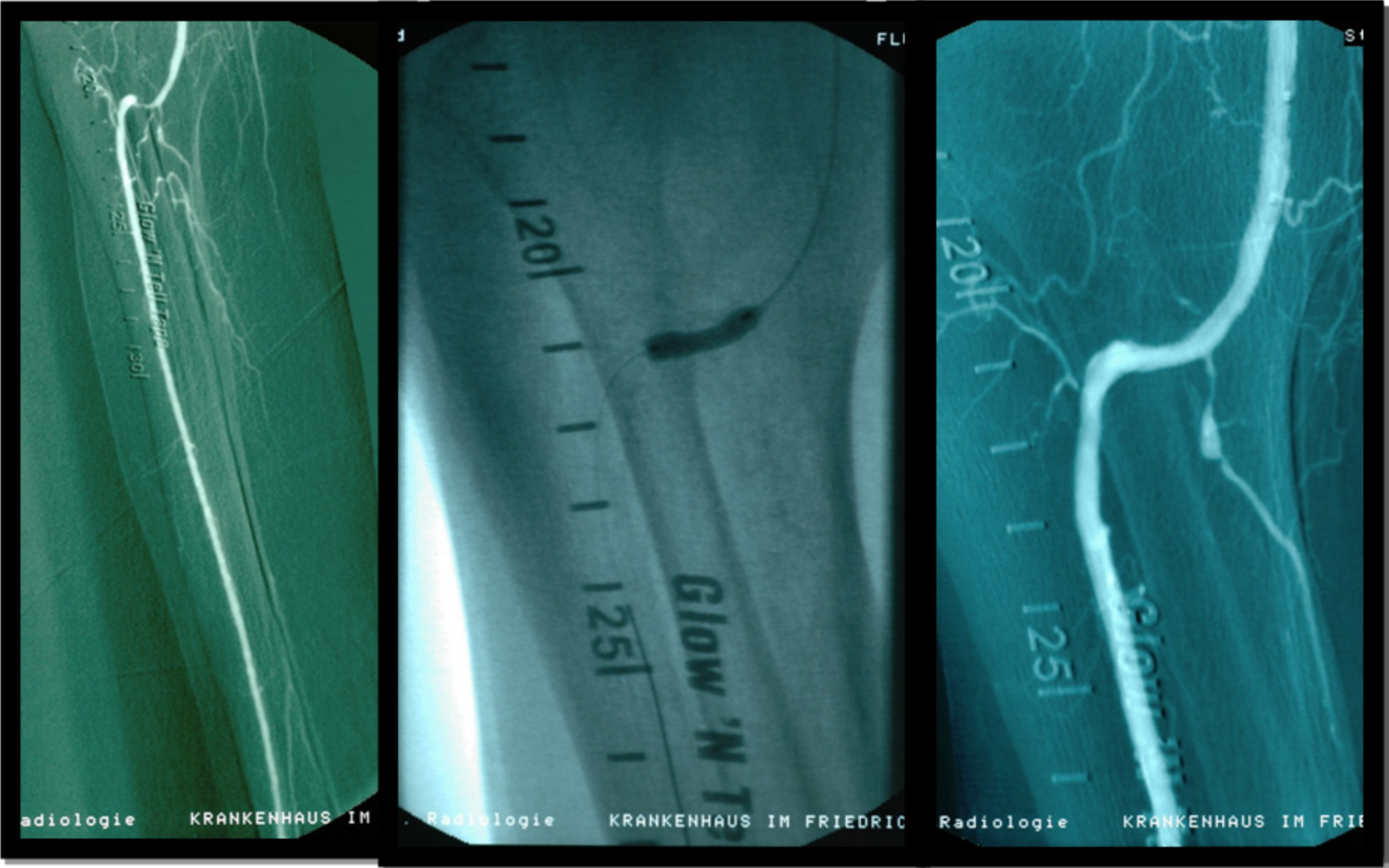
➤ A – Läsion

➤ B – Läsion

➤ C – Läsion

➤ D - Läsion

Unterschenkel – PTA : Fallbeispiel - Versager



Wo stehen wir ?



Ergebnisse

| Autor | Extr. | CLI | Diabetes | Erfolg | Beinerh. | F/U |
|--------------|--------------|------------|-----------------|---------------|-----------------|------------|
| Starck | 46 | 67% | NA | 76% | NA | NA |
| Schwarten | 114 | 100% | 60% | 97% | 86% | 24 |
| Bakal | 57 | 98% | 85% | 78% | NA | NA |
| Horvath | 71 | 42% | 35% | 96% | NA | NA |
| Dorros | 151 | 53% | 46% | 90% | NA | NA |
| Bull | 168 | 76% | 52% | 100% | 85% | 24 |
| Matsi | 84 | 100% | 77% | 83% | 52% | 24 |
| Wagner | 158 | 68% | 46% | 95% | 88% | 17 |
| Sivanathan | 46 | 53% | 13% | 96% | NA | NA |
| Sos | 71 | 83% | 59% | 91% | 86% | 12 |
| Lofberg | 86 | 100% | 74% | 88% | 75% | 12 |
| Söder | 72 | 100% | 76% | 76% | 80% | 18 |
| Alfke | 121 | 97% | 77% | 68% | 81% | 36 |

Crurale PTA – Uni MR 1997-2000

| | |
|----------------------|-------------|
| ➤ Patienten | 112 (63% M) |
| ➤ behandelte Beine | 122 |
| ➤ Alter | 72±10 |
| ➤ kritische Ischämie | 93% |
| ➤ Risikofaktoren | |
| ▪ Diabetes | 77% |
| ▪ Nikotinabusus | 39% |
| ▪ Niereninsuffizienz | 45% |
| ▪ > 2 Faktoren | 92% |

Crurale PTA – Uni MR 1997-2000

Run-off Status

vor PTA

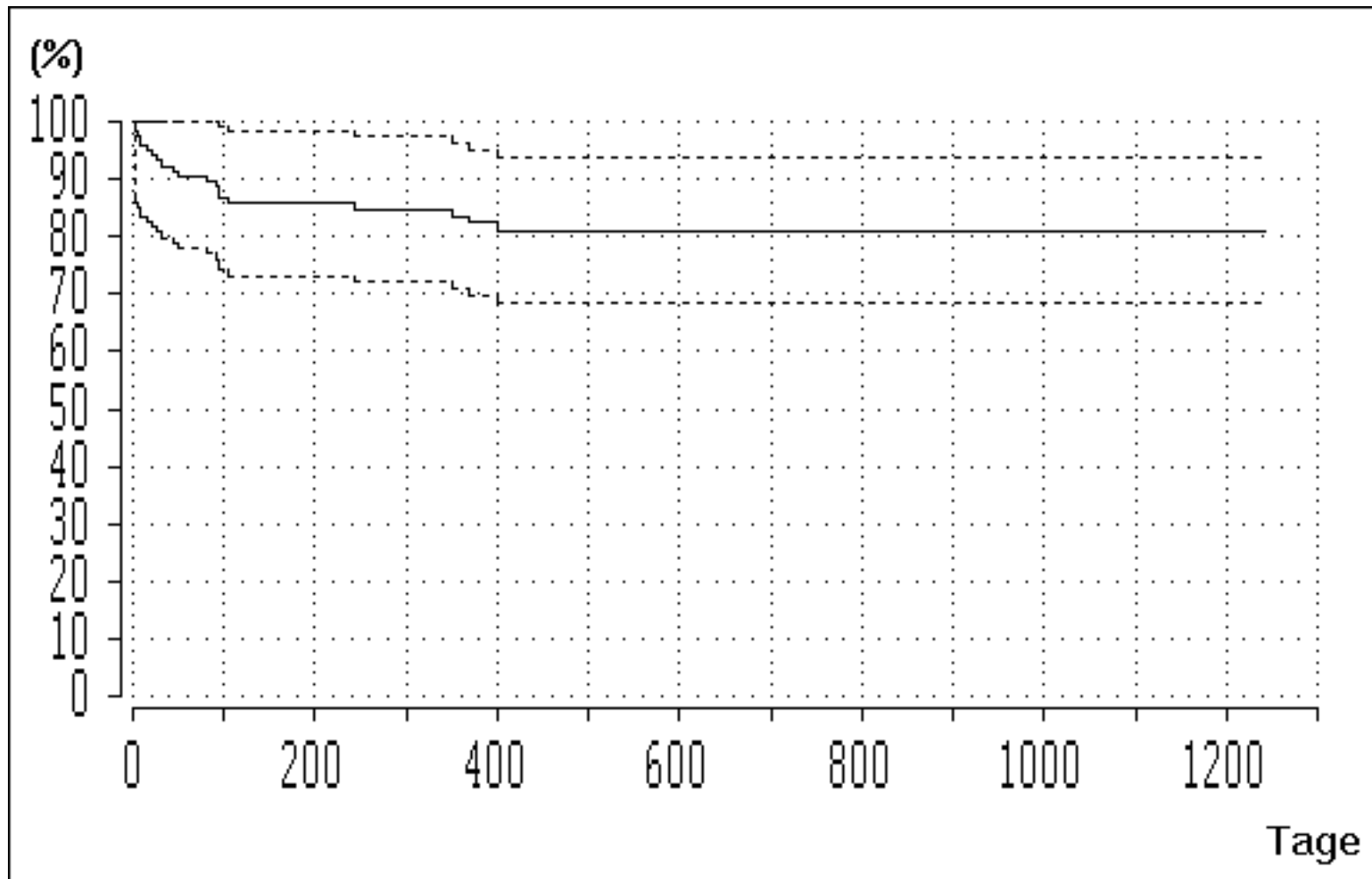
- kein crurales Gefäß 84 (69%)

nach PTA

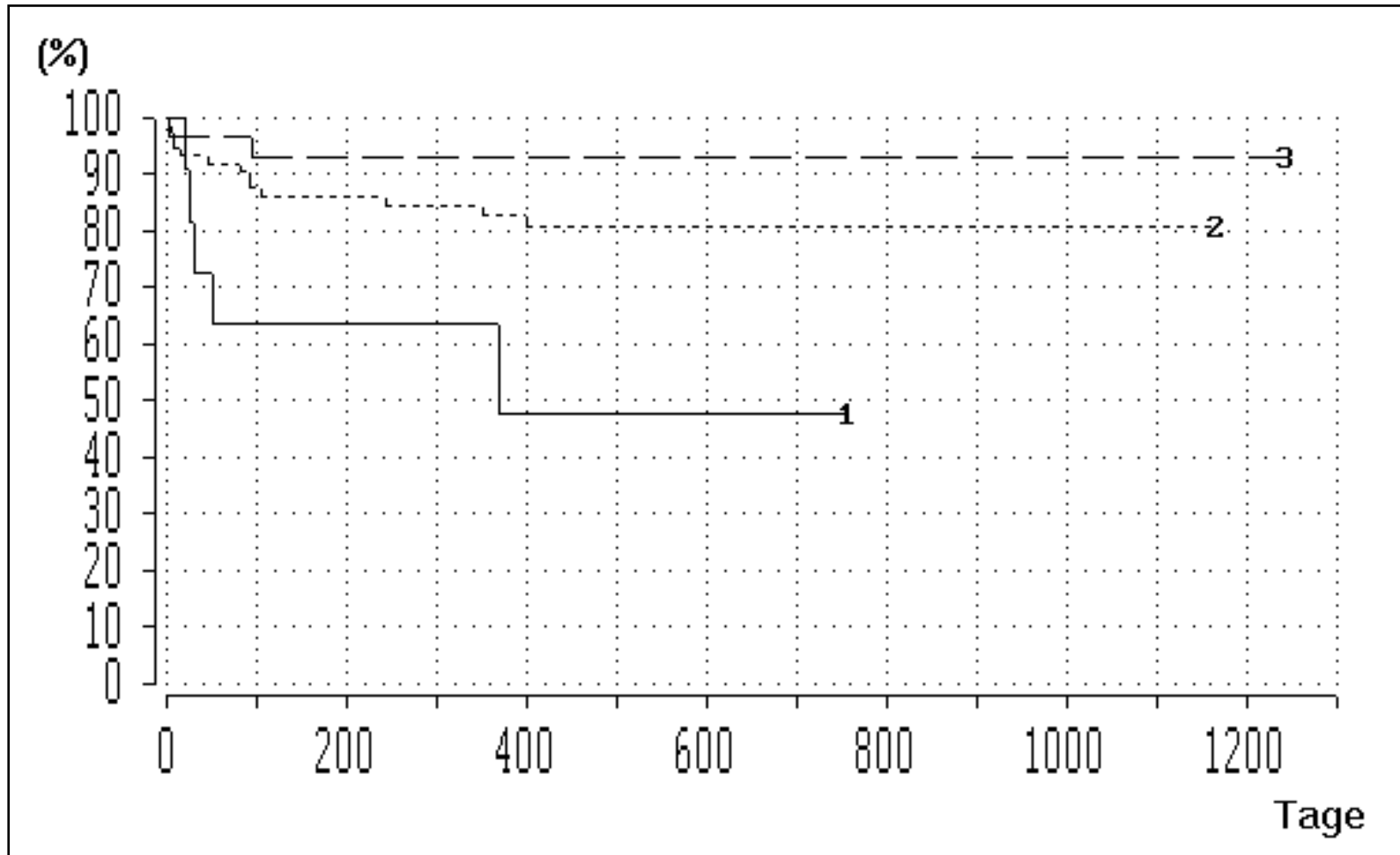
- zwei crurale Gefäße 32 (26%)
- ein crurales Gefäß 78 (64%)
- kein crurales Gefäß 11 (9%)

Crurale PTA (MR 1997-2000) - **Beinerhaltungsrate**

1 J – 84%
2 J – 81%
3 J – 81%

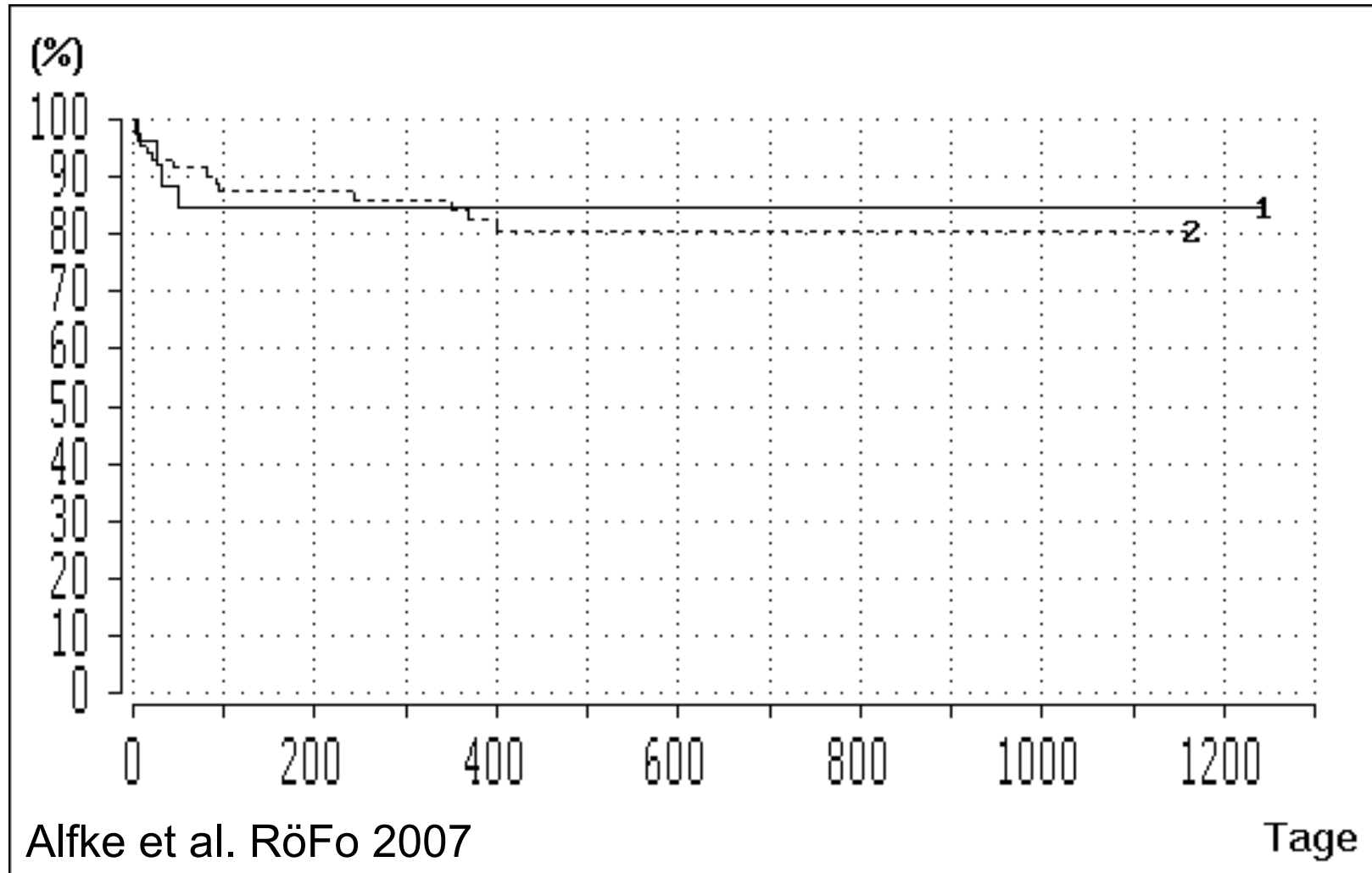


Crurale PTA (MR 1997-2000) - Beinerhaltungsrates und run off-Status



Unterschenkel – PTA

Crurale PTA (MR 1997-2000) - Beinerhaltungsrate und Diabetes



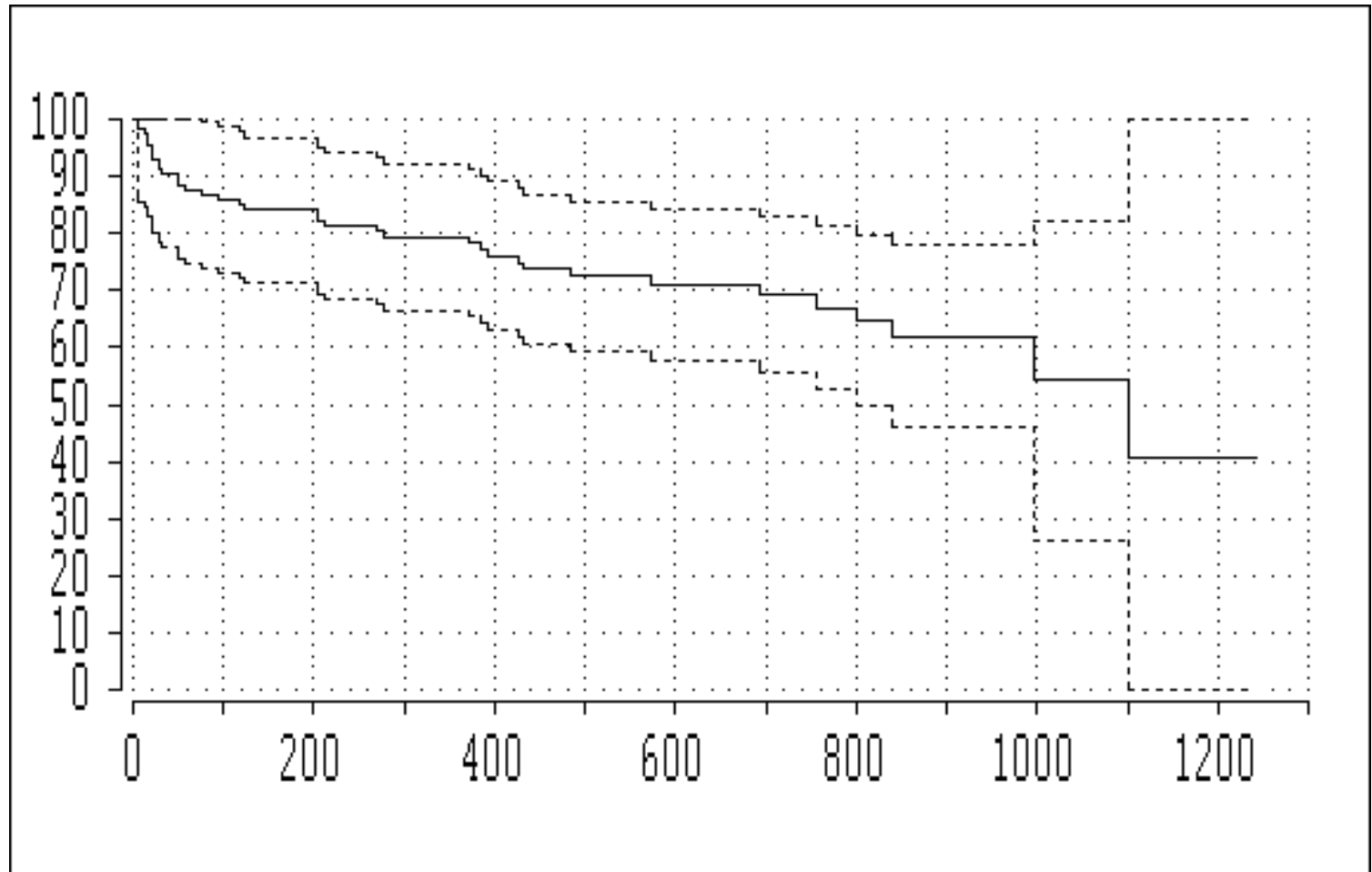
Alfke et al. RöFo 2007

Tage

Unterschenkel – PTA

Crurale PTA (MR 1997-2000) - Mortalität

1 J – 79%
2 J – 69%
3 J – 54%



Zusammenfassung

- **Ballon-PTA** der infrapoplitealen Gefäße
 - ✓ bewährtes Konzept seit Dotter 1964
 - ✓ endovaskuläre Intervention unabhängig vom morphologischen Typ !
 - ✓ periinterventionelles Management, Medikation !
 - ✓ Ballonangioplastie: first line treatment !
 - ✓ neue Studien zu Stents, DES, DEB
 - ✓ der klinische Erfolg ist entscheidend, nicht die Langzeitoffenheitsrate !!!
 - ✓ Rezidiveingriffe akzeptieren
 - ✓ multidisziplinäre Therapie
 - Wundzentrum

Gefäßzentrum im Friedrichshain, Berlin

