

## **Literatur (Auszug aus PubMed bzw Medline):**

Radiology 1998 Nov; (P) 209:

### **PTA versus Palmaz Stent in Femoropopliteal Obstruction:**

A Prospective Randomized Trial – Long Term Results

Cejna M, Iliasch H, Waldenberger P, Horvath W, thurnher S, Lammer J  
In a prospective randomized multicenter trial 154 patients, 60 female and 94 male patients, mean age 67a (39 to 87a) were randomized to balloon angioplasty alone (n=77) or balloon angioplasty followed by implantation of Palmaz stents (n=77). Despite better short-time results primary stent placement had no effect on long-term clinical and hemodynamic success compared to PTA alone.

Romanian Journal of Gastroenterology

### **Percutaneous Biliary Stenting** Vol.8, N.2, June 1999.

Branda H, Horvath W, Luft C

The percutaneous biliary stenting represents one of the greatest achievements of the modern interventional radiology. The discussion on the method stresses the role of percutaneous biliary stenting in providing a quasi normal drainage for the bile in malignant biliary stenosis.

Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1993 Jan;158(1):53-8

### **Laser versus rotation angioplasty in the recanalization of chronic femoropopliteal arterial occlusions.**

[Article in German]

Luft C, Horvath W, Oertl M, Haidinger D

Rontgenabteilung, Krankenhaus der Barmherzigen Bruder Linz.

Between June 1987 and July 1989 laser angioplasty, and between July 1989 and December 1991 rotation angioplasty was used as the method of choice for the recanalisation of chronic (minimal duration 3 months) arterial occlusions in the femoro-popliteal region. The technical success rate and final results following supplementary balloon dilatation were identical and there was no significant difference between the two groups (laser 87%, rotation 87.7%). For long occlusions (more than 150 mm), the success rate for rotation angioplasty was 60% and significantly higher than for laser angioplasty at 40%. Complication rates for rotation angioplasty were 24.3%, higher than laser angioplasty with 20.3%. This was due to the higher incidence of emboli of 12.1% compared with the laser technique of 7.3%. Cumulative patency rates after two years showed no significant difference (uncorrelated/correlated: laser 53.4%/67.8%; rotation 56.6%/67.5%). Using lytic and aspiration techniques, the higher incidence of embolisation during rotation angioplasty had no adverse effect on final outcome. If both methods are available, it is advisable to treat long occlusions by

rotation angioplasty because of the high immediate success rate, whereas short occlusions are best dealt by laser angioplasty because of the lower incidence of embolisation.

PMID: 8425077, UI: 93144758

Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1992 Aug;157(2):136-9

**Automated percutaneous lumbar diskectomy (APLD): the early and late changes in the CT with a clinical correlation.**

[Article in German]

Luft C, Weber J, Horvath W, Purgyi P

Rontgenabteilung, Krankenhaus der Barmherzigen Bruder, Linz.

In 52 out of 162 patients treated, CT changes were measured at early and late stages and correlated with clinical findings. Reduction in height of discs was measured by digital radiography. During early stages 9.6% showed gas collections peripherally and 3.8% centrally. Early and late examination showed uniform reaction in the area of the prolapse: no changes (type I), return to normal findings (type II), diffuse reduction of a broadly based lesion (type III), reduction in focal changes based on a broad lesion (type IV). Early results: 94.3% type I, 3.8% type III, 1.9% type IV. Late results: 55.7% type I, 3.8% type II, 21.2% type III, 19.3% type IV. Maximal reduction of the height of the disc of 10% occurred in 32.6% of cases. There was no meaningful correlation between CT appearances and clinical status.

PMID: 1515621, UI: 92385784

Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1991 May;154(5):563-5

**Stenosis near the origin of the subclavian artery in arcus aortae dexter--its diagnosis and therapy.**

[Article in German]

Luft C, Horvath W, Oertl M

Krankenhaus der Barmherzigen Bruder Linz, Rontgen.

PMID: 1852051, UI: 91239884

DE: \*aorta-arch-diagnosis; \*aorta-arch-congenital-disorder;  
\*subclavian-steal-syndrome-diagnosis;  
\*subclavian-steal-syndrome-therapy;  
\*percutaneous-transluminal-angioplasty; human-; male-; case-report;  
adult-; article-  
EM: cardiovascular-system (920); great-blood-vessel (922); diagnosis-  
(140); congenital-disorder (315); therapy- (160); mammal- (738); human-  
(888); male- (41); case-report (151); adult- (18); article- (60)  
TG: 920; 922; 140; 315; 160; 738; 888; 41; 151; 18; 60  
PT: J (Journal-Article)

Radiology 1991 Feb;178(2):335-7

**Laser angioplasty: results of a prospective, multicenter study at 3-year follow-up.**

Lammer J, Pilger E, Karnel F, Schurawitzki H, Horvath W, Riedl M, Umek H, Klein GE, Schreyer H, Kretschmer G, et al



Department of Radiology, Karl Franzens University, Graz, Krankenhaus der Barmherzigen Bruder Linz, Austria.

A prospective multicenter trial was initiated to evaluate the efficacy and safety of laser angioplasty. Laser recanalization was performed in 338 patients with arteriosclerotic femoropopliteal artery occlusions (average length, 8.5 cm). Neodymium-yttrium-aluminum-garnet lasers were used in combination with sapphire probe catheters. The initial recanalization rate was 85%. Complications were observed in 14% of the patients. Emergency surgery was required in 1.5%. The cumulative long-term patency rate of the successfully recanalized arteries was 80%, 70%, 62%, and 57% at 6 months, 1 year, and 2 and 3 years, respectively. The patency rates were not affected by the length of the occlusion and the long-term medication (platelet inhibition vs anticoagulation), but patients with a normal runoff had significantly better patency rates than those with reduced runoff (63% vs 52%, P less than .01). The study has shown that laser-assisted angioplasty is safe and at least as effective as conventional angioplasty.  
Publication Types:

Clinical trial

Multicenter study

PMID: 1987588, UI: 91102227

Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1991 Jan;154(1):28-33

**The peripheral macroembolism as a complication of laser angioplasty of the arteries of the extremities--therapy using interventional radiologic measures.**  
[Article in German]

Horvath W, Oertl M, Luft C, Haidinger D

Rontgenabteilung, Krankenhaus der Barmherzigen Bruder Linz, Osterreich. From 1987 to 1989 in the Barmherzige Bruder Hospital in Linz/Austria 160 arteries of extremities were treated with laser-assisted balloon dilatation. During these interventions peripheral macroembolism occurred 8 times. The mean length of the recanalised segment was 8.7 cm and thus longer than average (6.5 cm). All 8 cases were successfully treated by aspiration or aspiration combined with local lysis. No adverse effects on long-term results were noted. In 4 cases an early occlusion of the recanalised segment was diagnosed within 48 hours after laser-assisted angioplasty, three times accompanied by embolism. These emboli, too, were removed by aspiration and lysis. To reduce the risk of embolisation strict rules of indication concerning the age of an occlusion have to be observed and mechanical trauma has to be minimised.

PMID: 1846688, UI: 91117804

Radiology 1990 Nov;177(2):565-9

**Percutaneous transluminal angioplasty of crural arteries.**

Horvath W, Oertl M, Haidinger D

Department of Radiology, Krankenhaus der Barmherzigen Brueder, Linz, Austria.

The authors dilated 103 stenosed crural arteries in 71 patients. Primary success was defined as traversing and reducing the lesion to a residual stenosis of less than 30%. This was achieved in 96% of cases. Complications included one vessel rupture and one occluding intimal flap, which were treated by the vascular surgeon with bypass and venous patch, respectively. One hematoma at the puncture site was treated surgically because of its size. With modern materials such as steerable guide wires and low-profile balloon catheters, dilation of crural arteries has become safe. Until now, the indications for percutaneous transluminal angioplasty (PTA) of crural arteries have been limited to Fontaine stages III and IV disease. The authors believe that the indications for PTA in Fontaine stage IIb disease are justified, especially if intervention improves outflow after a more proximal recanalizing procedure is performed.

PMID: 2145609, UI: 91018334

Radiologe 1990 Feb;30(2):45-9

**Femoropopliteal laser recanalization--a multicenter study.**

[Article in German]

Lammer J, Pilger E, Karnel F, Schurawitzki H, Horvath W, Oertl M, Riedl M, Umek

H, Klein GE, Schreyer H, et al

Universitätsklinik für Radiologie, Universität Graz, Krankenhaus der Barmherzigen Bruder Linz, Austria.

Laser-assisted angioplasty was performed in four different hospital centers, following the same treatment protocol and using an Nd-YAG laser with a sapphire-probe catheter. The initial recanalization rate of 259 femoro-popliteal occlusions with a mean length of 7.5 cm was 84%. Dissections or perforations were observed in 10%. An emergency surgical intervention was required in 1.1%. The long-term patency rate of the successfully recanalized arteries was 74% after 2 years. The cumulative cure rate of all 259 patients was 62%.

Publication Types:

Clinical trial

Multicenter study

PMID: 2138797, UI: 90207624

Vasa Suppl 1990;30:186-8

**Percutaneous transluminal angioplasty of stenoses and occlusions of the crural arteries.**

[Article in German]

Horvath W, Oertl M, Luft C, Haidinger D  
Krankenhaus der Barmherzigen Bruder, Linz.

PMID: 2150126 UI: 91165031

CP: SWITZERLAND

MESH: Adult-; Aged-; Aged,-80-and-over; Follow-Up-Studies; Middle-Age

MESH: \*Angioplasty,-Balloon; \*Arterial-Occlusive-Diseases-therapy;

\*Ischemia-therapy; \*Leg-blood-supply

TG: Female-; Human-; Male-

PT: JOURNAL-ARTICLE

Vasa Suppl 1989;27:207-9

**Concomitant measures in laser angioplasty of extremity arteries.**

[Article in German]

Horvath W, Oertl M, Haidinger D

PMID: 2533735, UI: 90162358

CP: SWITZERLAND

MESH: Adult-; Aged-; Aged,-80-and-over; Combined-Modality-Therapy;  
Middle-Age

MESH: \*Angioplasty,-Balloon-instrumentation;

\*Arterial-Occlusive-Diseases-surgery; \*Laser-Surgery-instrumentation;

\*Leg-blood-supply

TG: Female-; Human-; Male-

PT: JOURNAL-ARTICLE

Rontgenblatter 1985 Feb;38(2):38-44

**Diagnosis of changes in supra-aortic extracranial vessels with special reference to collateral branches--real time sonography, Doppler ultrasound, angiography.**

[Article in German]

Horvath W

High-resolution real-time sonography combined with continuous-wave Doppler for non-invasive screening of the supraaortal extracranial arteries was performed in 1133 patients during the last 13 months. The results of these techniques with regard to diagnosis of stenosis greater than or equal to 50%, complete occlusions and collateralization, are given and compared with 134 cerebral angiograms. The diagnostic information obtained can be used to differentiate between potentially surgically correctable lesions from those that require other medical therapy.

PMID: 3885374, UI: 85167931

Vasa 1985;14(1):84-9

**Postthrombotic status and its modification by dihydroergotamine.**

[Article in German]

Horvath W, Tomschi F

PMID: 3976281, UI: 85144602



Radiologe 1983 Aug;23(8):375-7

**Pharmacophlebography with dihydroergotamine.**

[Article in German]

Horvath W, Oertl M

Insufficient imaging of the deep venous system of the lower limb can be expected in phlebography varying in number with the kind of venous disease. Either too little contrast is achieved or even a pair of deep veins are missed. Studying the effects of dihydroergotamine a shift of blood flow from surface to depth could be proven. In consequence a second phlebography after administering dihydroergotamine led to a decisive contrast enhancement in 85.7% and to the imaging of the missing veins in 75%. A control study without application of a pharmakon did not show these results. Administering 0.5-1.0 mg of dihydroergotamine i.v. (providing no contraindication is present) can improve the diagnostic value of phlebography in problem cases.

PMID: 6622670, UI: 84016606

ROFO Fortschr Geb Rontgenstr Nuklearmed 1983 Feb;138(2):179-83

**Documentation of hemodynamic parameters in collateral circulation.**

[Article in German]

Horvath W

By adding phase-differences of serial angiographies in contrasting colours, combination-images are produced, which show the functional way of perfusion without losing significant morphologic details. Using this technique it is possible to document the direction of blood flow and other hemodynamic parameters and to estimate the average flow rate in a single picture. Finally own results in patients with obliterations and collaterals are given and discussed.

PMID: 6402426, UI: 83133743

Vasa 1983;12(1):40-5

**Modified phlebography in varicose veins. A preliminary report on the effects of bandages and dihydroergotamine.**

[Article in German]

Horvath W, Oertl M, Tomschi F

PMID: 6837125, UI: 83174162

Vasa 1983;12(3):239-48

**Modified phlebography for varicose veins. Report on the effect of bandaging and dihydroergotamine. (2).**

[Article in German]

Horvath W, Oertl M, Tomschi F

PMID: 6637025, UI: 84047522

CP: Switzerland

LA: German

LS: English

DE: \*varicosis-; \*phlebography-; \*dihydroergotamine-;  
\*compression-therapy; \*pharmacotherapy-; \*leg-varicosis

MN: sandoz

TN: dihydergot

EM: therapy- (160); methodology- (130); human- (888);  
peripheral-vascular-system (923); diagnosis- (140); clinical-article  
(152); skin,-hair,-nails,-and-sweat-glands. (980)

TG: 160; 130; 888; 923; 140; 152; 980

PT: J (Journal-Article)

ROFO Fortschr Geb Rontgenstr Nuklearmed 1982 Mar;136(3):321-7

**Polychromatic phase summation for angiography.**

[Article in German]

Horvath W

PMID: 6212459, UI: 82237568

AB: After a discussion of some basic points of the color theory and color image processing, a new easy method of producing indirect color x-ray pictures is described and contrasted with conventional methods. This technique is best suitable for serial angiography, where the information contained in the different serial photographs can be made visible in a single multicolor combination image. Finally practical examples of what results can be attained are given and discussed.

DE: \*angiography-; \*color-radiography

EM: methodology- (130); diagnosis- (140)

TG: 130; 140

PT: J (Journal-Article)

AN: 82148554

TI: [Percutaneous transluminal angioplasty in patients following vascular surgery]  
TO: PTA an Patienten nach gefasschirurgischen Eingriffen.  
AU: Horvath-W; Oertl-M; Haidinger-D  
SO: Vasa-Suppl. 1989; 27: 195-7  
ISSN: 0251-1029  
PY: 1989  
LA: GERMAN; NON-ENGLISH  
CP: SWITZERLAND  
MESH: Arterial-Occlusive-Diseases-surgery; Blood-Vessel-Prosthesis; Veins-transplantation  
MESH: \*Angioplasty,-Balloon-methods;  
\*Arterial-Occlusive-Diseases-therapy;  
\*Graft-Occlusion,-Vascular-therapy;  
\*Postoperative-Complications-therapy  
TG: Human-  
PT: JOURNAL-ARTICLE

TI: Effects of dyhydroergotamine on the pelvic veins - evaluation by means of digital subtraction angiography  
TO: WIRKUNGEN VAN DIHYDROERGOTAMIN AUF DIE BECKENVENEN - UNTERSUCHUNG MIT DIGITALER SUBTRAKTIONSSAGIOGRAPHIE  
AU: Horvath-W  
AD: Röntgenabteilung des Krankenhauses der Barmherzigen Bruder, A-4020 Linz, Austria  
SO: PHLEBOL-PROKTOL. 16/6 (224-228) 1987  
CO: PPHRD  
ISSN: 0340-305X  
PY: 1987  
CP: Federal-Republic-of-Germany  
LA: German  
LS: English  
DE: \*pelvis-vein; \*vein-; \*blood-flow-velocity; digital-subtraction-angiography; \*dihydroergotamine-  
RN: 511-12-6  
EM: peripheral-vascular-system (923); diagnosis- (140); automation-and-computers (530); clinical-article (152); human-tissue,-cells,-or-cell-components (111); human- (888)  
TG: 923; 140; 530; 152; 111; 888  
PT: J (Journal-Article)

TI: Phlebograms in color  
TO: DAS FARBIGE PHLEBOGRAMM  
AU: Horvath-W  
AD: Röntgenabteilung des Krankenhauses der Barmherzigen Bruder, A-4020 Linz/Donau, Austria  
SO: PHLEBOL-PROKTOL. 12/2 (81-90) 1983  
CO: PPHRD  
PY: 1983  
CP: Federal-Republic-of-Germany  
LA: German  
LS: English; French  
DE: \*phlebography-  
EM: diagnosis- (140); peripheral-vascular-system (923); methodology- (130); human- (888)  
TG: 140; 923; 130; 888  
PT: J (Journal-Article)



Format: Abstract

Send to

Int Angiol. 2001 Sep;20(3):200-7.

## Impact of atherosclerotic risk factors on the anatomical distribution of peripheral arterial disease.

Haltmayer M<sup>1</sup>, Mueller T, Horvath W, Luft C, Poelz W, Haidinger D.

### Author information

#### Abstract

**BACKGROUND:** The aim of the study was to determine predictors of hemodynamically relevant atherosclerosis (HRA) in different segments of lower limb arteries in patients with peripheral arterial disease (PAD).

**METHODS:** In a retrospective case-control study 106 hospitalized consecutive patients with symptomatic PAD and 52 asymptomatic control subjects were studied. All patients underwent distal aortofemoral angiography. The arteries of the lower limbs were divided into three sections: in the aorto-iliac and femoro-popliteal segments HRA was defined as one or more stenosis of over 50%. In the crural segment it was considered if at least two arteries of one lower leg had occlusions/stenoses of over 50%.

**RESULTS:** In 106 patients, there were 132 cases of hemodynamically relevant lesions, and in 26 patients in two segments. We separately compared 23 cases with aorto-iliac, 82 with femoro-popliteal and 27 with crural manifestation to the 52 control subjects. Calculating age- and sex-adjusted odds ratios, we found that current smoking status and plasminogen levels were significantly associated with HRA in the aorto-iliac and femoro-popliteal segments, whereas in diabetes mellitus the association was found to be in the crural and femoro-popliteal segments. However, there was no such association for lipid profiles and fibrinogen.

**CONCLUSIONS:** We conclude that the anatomic distribution of HRA in patients with PAD is different according to the risk factor profile. The aorto-iliac and crural segments show specific risk profiles while the femoro-popliteal segment seems to be a transition zone. Smoking and high plasminogen levels may be related to atherosclerosis of proximal segments, diabetes to that of the distal segments.

PMID: 11573053

Format: Abstract

Send to

Angiology. 2001 Sep;52(9):605-13.

## Association between erythrocyte mean corpuscular volume and peripheral arterial disease in male subjects: a case control study.

Mueller T<sup>1</sup>, Haidinger D, Luft C, Horvath W, Poelz W, Haltmayer M.

### Author information

#### Abstract

Elevated serum total homocysteine, an established risk factor for peripheral arterial disease, is influenced by the vitamin B12 and folate status. Since these vitamins are inversely correlated with erythrocyte mean corpuscular volume, an investigation of whether mean corpuscular volume is higher in patients with symptomatic peripheral arterial disease than in healthy subjects was performed. Furthermore, a determination of predictors of increased mean corpuscular volume levels in this population free of symptomatic coronary artery disease, cerebrovascular disease, and diabetes mellitus was carried out. From 469 consecutive patients with symptomatic peripheral arterial disease, 100 fulfilled study inclusion criteria. Peripheral arterial disease was confirmed by angiography. One hundred age-matched subjects without peripheral arterial disease as verified by ankle-brachial index measurements  $>0.9$  served as control subjects. Patients with PAD displayed a significantly higher mean corpuscular volume level (94.5 fl) than control subjects (90.9 fl,  $p < 0.001$ ). Logistic regression analysis showed that current smoking status ( $p < 0.001$ ) and mean corpuscular volume ( $p = 0.009$ ), but not total homocysteine or lipid parameters discriminated case control status. In addition, logistic regression analysis revealed a relationship of mean corpuscular volume with smoking ( $p = 0.001$ ), gamma-glutamyltransferase ( $p < 0.001$ ), and total homocysteine ( $p = 0.012$ ). This model predicted mean corpuscular volume values with an accuracy of 83%. Elevated mean corpuscular volume is a predictor of symptomatic peripheral arterial disease in the sample studied. A deficiency of folate and/or vitamin B12 may be responsible for this observation, as indicated by the correlation of mean corpuscular volume with total homocysteine. Due to the additional association of mean corpuscular volume with smoking and gamma-glutamyltransferase, an unhealthy lifestyle with low vitamin intake may cause elevated mean corpuscular volume values in patients with PAD.

PMID: 11570659 DOI: 10.1177/000331970105200904