



**RESULTATE
KOMPLIKATIONEN
RESTBESCHWERDEN
- BALGRIST EXPERIENCE -**

Hands-on Workshop in Hüft-Arthroskopie

SWISSENDOS FRIBOURG

13. + 14. Dezember 2010

P. Zingg

RESULTATE: Kollektiv

01/2005 – 12/2005: learning curve

01/2006 - 07/2009 326 Arthroskopien

Indikationen:

- femoroacetabuläres Impingement (FAI)

kurativ: 134

palliativ: 122

- diversese 44

Fup: 1.8 Jahre (1- 4)



RESULTATE: FAI

Womac

	präop	postop	
Schmerz	3.0 (SD 2.0)	2.1 (SD 2.2)	p<0.001
Steifigkeit	2.8 (SD 2.6)	2.2 (SD 2.5)	
Funktion	2.5 (SD 2.0)	1.9 (SD 2.2)	p=0.008
Total	2.7 (SD 1.9)	1.9 (SD 2.1)	p=0.003

RESULTATE: FAI

subjektiver Hüftwert:	74 %	
Zufriedenheit:	75%	
Wiederholung:	Ja	82%
	Nein	18%

Innenrotation:	prä	post
	15° (SD 10.7)	26° (SD 10.4) p<0.001

RESULTATE: FAI

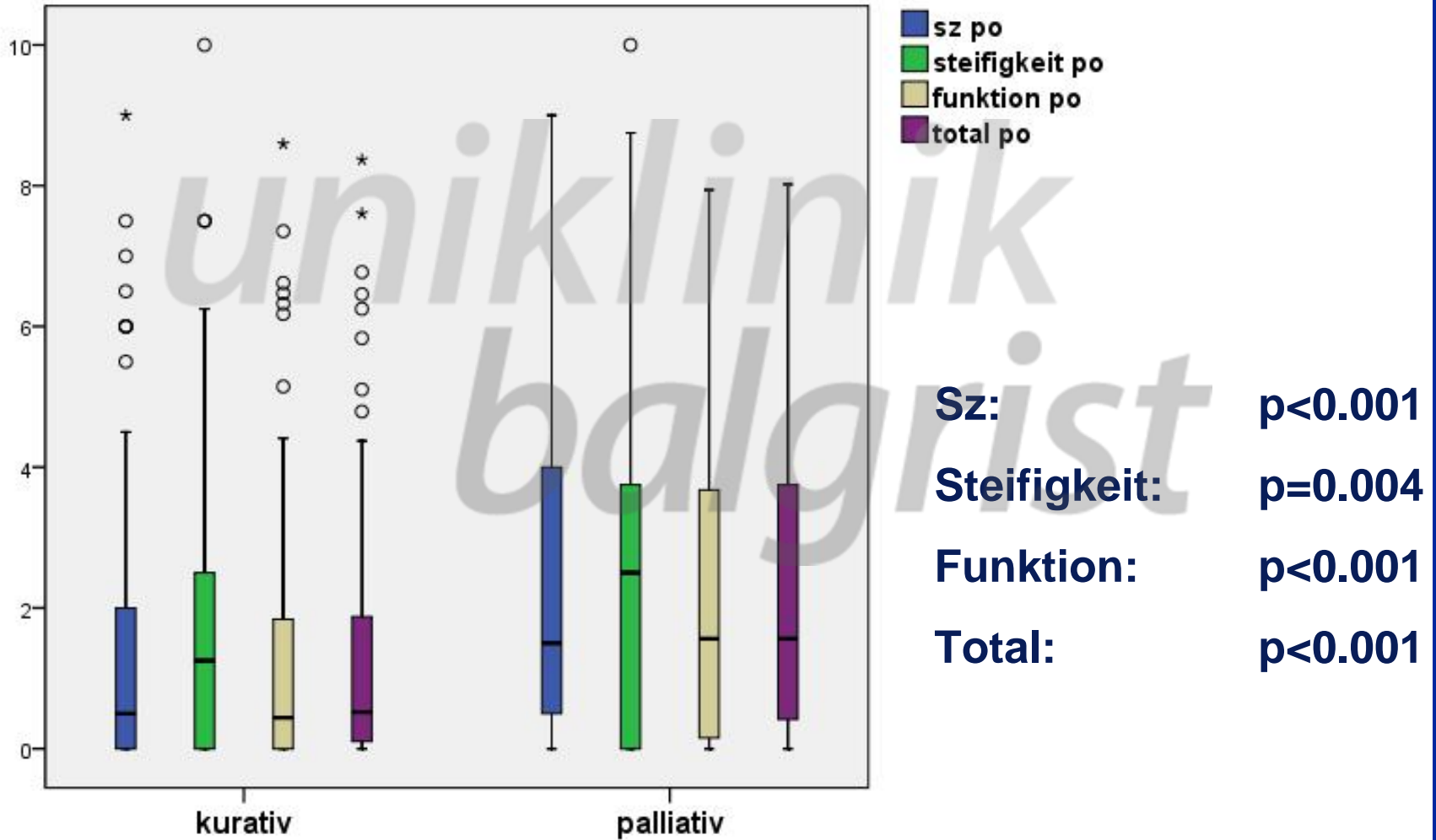
	kurativ	palliativ
Alter	29 (SD 8.8)	42 (SD 8.5)
IR	17° (SD 11.8)	13° (SD 9.4) p=0.039

**Keine Unterschiede: Geschlecht, Grösse,
Gewicht, BMI, OP Dauer**

RESULTATE: FAI

	kurativ	palliativ
Subj. Hüftwert:	77%	71%
Zufriedenheit:	77%	72%
Wiederholung:		
Ja	87%	79%
Nein	13%	21%
Innenrotation:	17° (SD 9.4)	13° (SD 11.8) p<0.039

RESULTATE: FAI



RESULTATE: FAI'

Prospektive

Arthroskopie

Ein

Zeitraum

postoperative	arthroskopy					open surgery					p
	n	mean	SD	min	max	n	mean	SD	min	max	
xray											
CE-angle	22	30	4.7	18.0	37.0	14	30	6.4	22.0	43.0	
AC-index	22	7	3.6	0.0	16.0	14	7	3.6	0.0	13.0	
alpha angle	22	48	5.1	13.0	63.0	14	47	2.3	3.0	43.0	
h. acetabular coverage ratio	22	0.02	0.07	0.12	0.23	14	0.02	0.07	0.12	0.23	
COS	22	7				14	7				
COS ratio	7	0	0.1	0.1	0.2	7	0	0.1	0.1	0.5	
depth of resection	22	4	1.3	2.0	7.0	14	3	1.8	0.0	7.0	
sector of resection	22	1	7.2	20.0	50.0	14	46	8.1	31.0	60.0	
alpha angle 1	22	37	5.6	27.0	49.0	14	39	5.1	29.0	46.0	

Hüftluxation

Knöchernerne Korrektur

Arthroskopie equivalent Hüftluxation

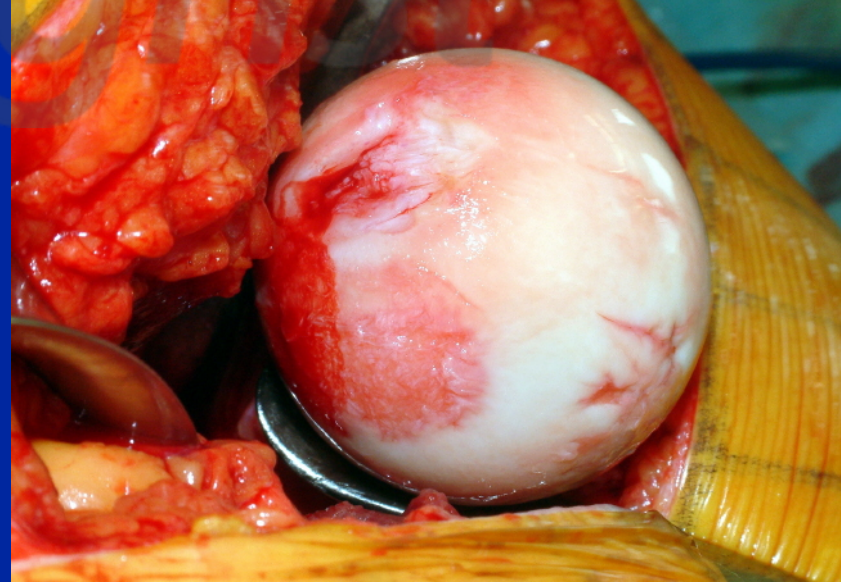
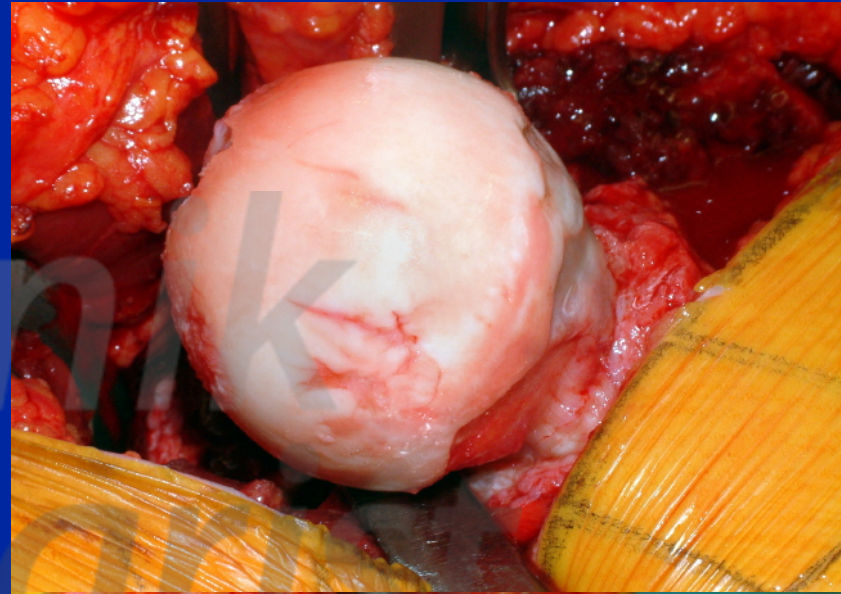
acetabular coverage angle 3	22	164	5.7	153.0	174.0	14	167	8.2	152.0	179.0
acetabular coverage angle 4	22	152	52.1	-8.0	180.0	14	157	47.1	-5.0	179.0
acetabular coverage angle 5	22	142	35.7	-3.0	175.0	14	143	43.6	-2.0	170.0
acetabular coverage angle 6	22	139	33.4	-4.0	164.0	14	136	43.4	-9.0	180.0
acetabular coverage angle 7	22	149	7.8	137.0	165.0	14	149	8.0	135.0	160.0
resection depth ratio1	22	0.14	0.04	0.08	0.22	14	0.11	0.08	0.00	0.24
resection depth ratio2	22	0.14	0.06	0.04	0.27	14	0.11	0.08	0.00	0.24
resection depth ratio3	22	0.14	0.06	0.04	0.26	14	0.12	0.07	0.00	0.27
resection depth ratio4	22	0.16	0.08	0.00	0.31	14	0.13	0.07	0.00	0.27
resection depth ratio5	22	0.14	0.08	0.04	0.31	14	0.13	0.07	0.00	0.24
resection depth ratio6	22	0.09	0.08	0.00	0.23	14	0.10	0.08	0.00	0.20
resection depth ratio7	22	0.06	0.08	0.00	0.20	14	0.06	0.07	0.00	0.20
sector of resection 1	22	42	9.2	27.0	58.0	14	38	18.7	0.0	67.0
sector of resection 2	22	44	8.4	27.0	58.0	14	39	19.0	0.0	67.0
sector of resection 3	22	44	9.6	22.0	65.0	14	41	14.6	0.0	60.0
sector of resection 4	22	42	8.6	26.0	55.0	14	42	14.0	0.0	57.0
sector of resection 5	22	38	7.7	26.0	57.0	14	36	16.3	0.0	54.0
sector of resection 6	22	27	18.2	0.0	49.0	14	27	18.5	0.0	51.0
sector of resection 7	22	22	20.0	0.0	54.0	14	23	19.9	0.0	53.0
acetabulare depth	22	7	2.2	2.0	10.0	14	6	2.6	0.0	10.0



INTRAOP KOMPLIKATIONEN: allgemein

Instrumenten-Bruch

Knorpelschäden



PERIOPERATIVE KOMPLIKATIONEN: FAI

2 tiefe Beinvenenthrombosen

1 skrotale Schwellung

1 Verbrennung 5x5 mm

8 temporäre Hypästhesien

- 3 im Genitalbereich
- 3 N. cutaneus femoris lateralis
- 1 Arm
- 2 N saphenus

POSTOP KOMPLIKATION: allgemein

Nervenschäden

- N. cutaneus femoris lateralis
- N. pudendus
- N. Ischiadicus
- N. gluteus superior



KOMPLIKATIONEN: FAI

	kurativ	palliativ
Restbeschwerden	17 (12%)	26 (21%)
Stressfrakturen	0	5
heterot. Ossifikat.	1	1
Rearthroscopie	5	3
Hüft-TP	0	14 (11%)

RESTBESCHWERDEN: allgemein

- Restimpingement
- Adhäsionen
- heterotope Ossifikationen
- Tendinopathien: Iliopsoas, Abduktoren
- Stressfrakturen
- Femurkopfnekrose



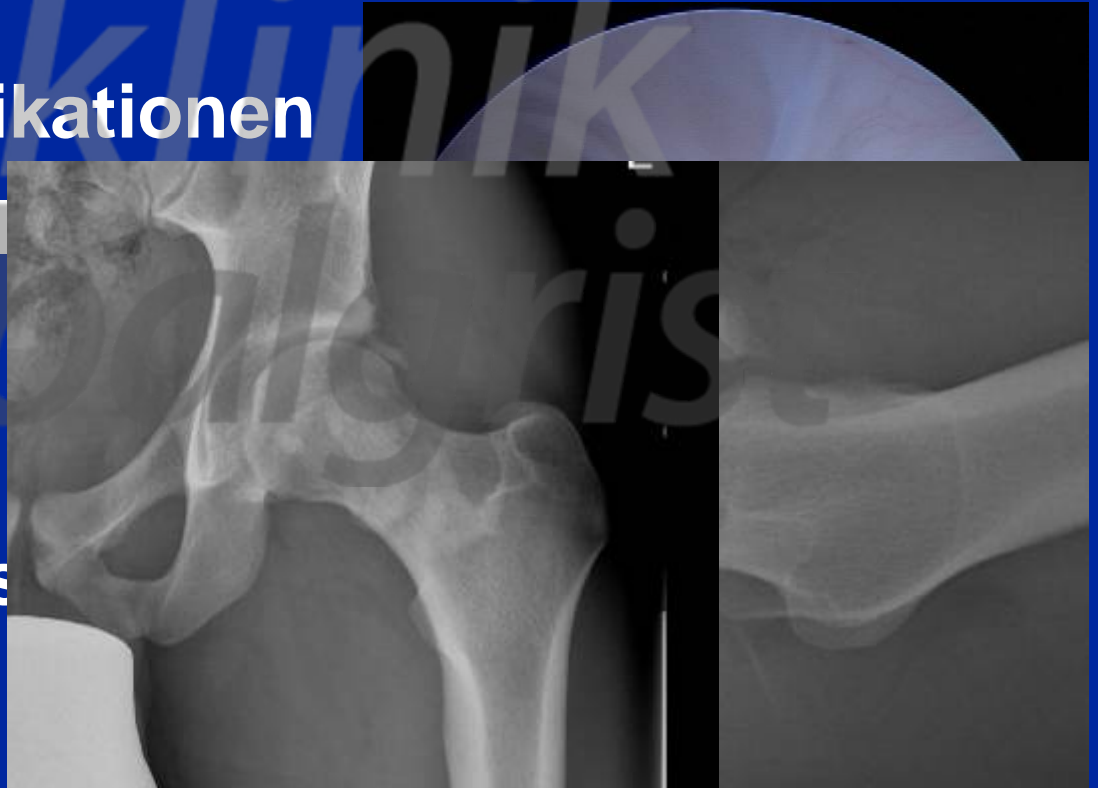
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RESTBESCHWERDEN: allgemein

- Restimpingement
- Adhäsionen
- heterotope Ossifikationen
- Tendinopathien: Iliotibialband, Gluteus Maximus, Abduktoren
- Stressfrakturen
- Femurkopfnekrosen



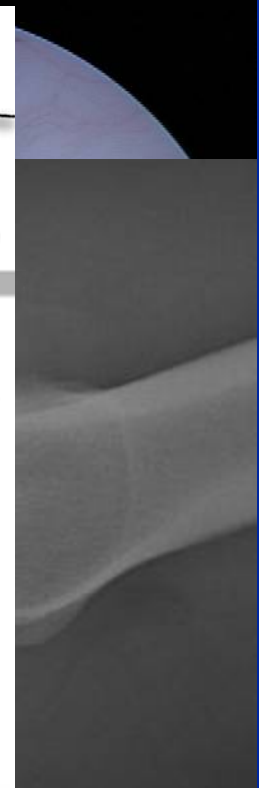
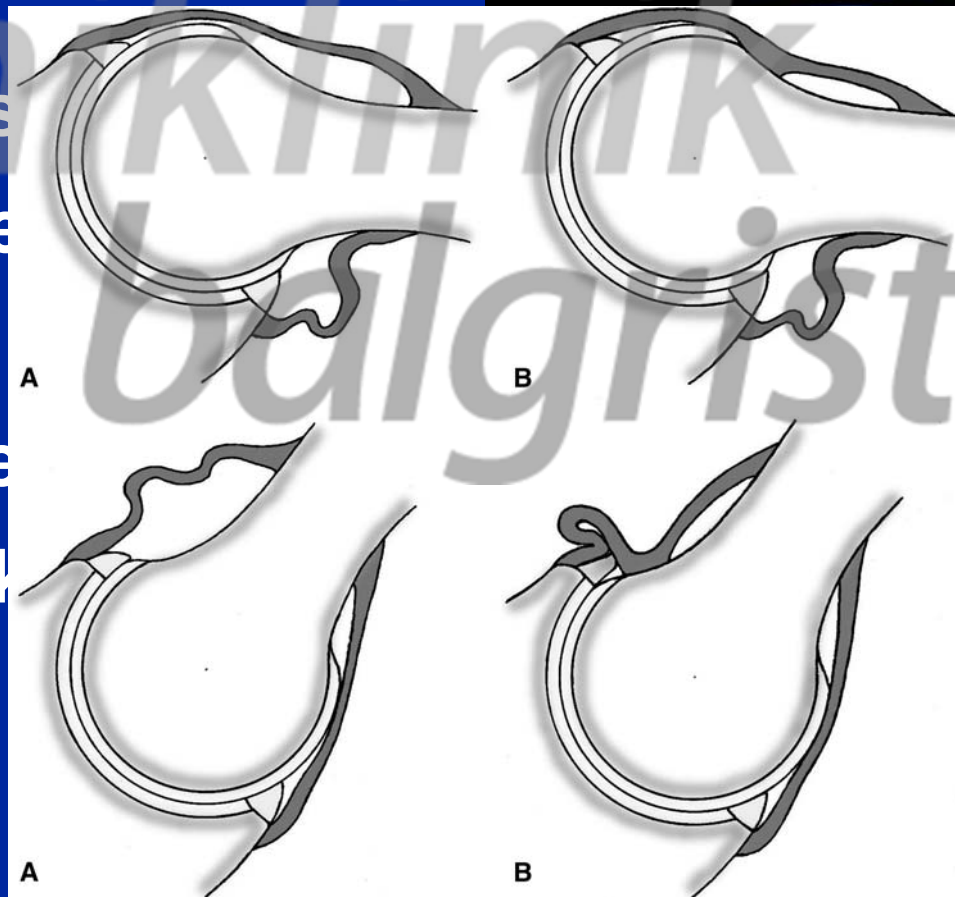
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- Stressfrakturen
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RESTBESCHWERDEN: allgemein

- Restimpingement
- Adhäsionen
- heterotope Osteophyten
- Tendinopathien
Abduktoren
- Stressfrakturen
- Femurkopfnarbe

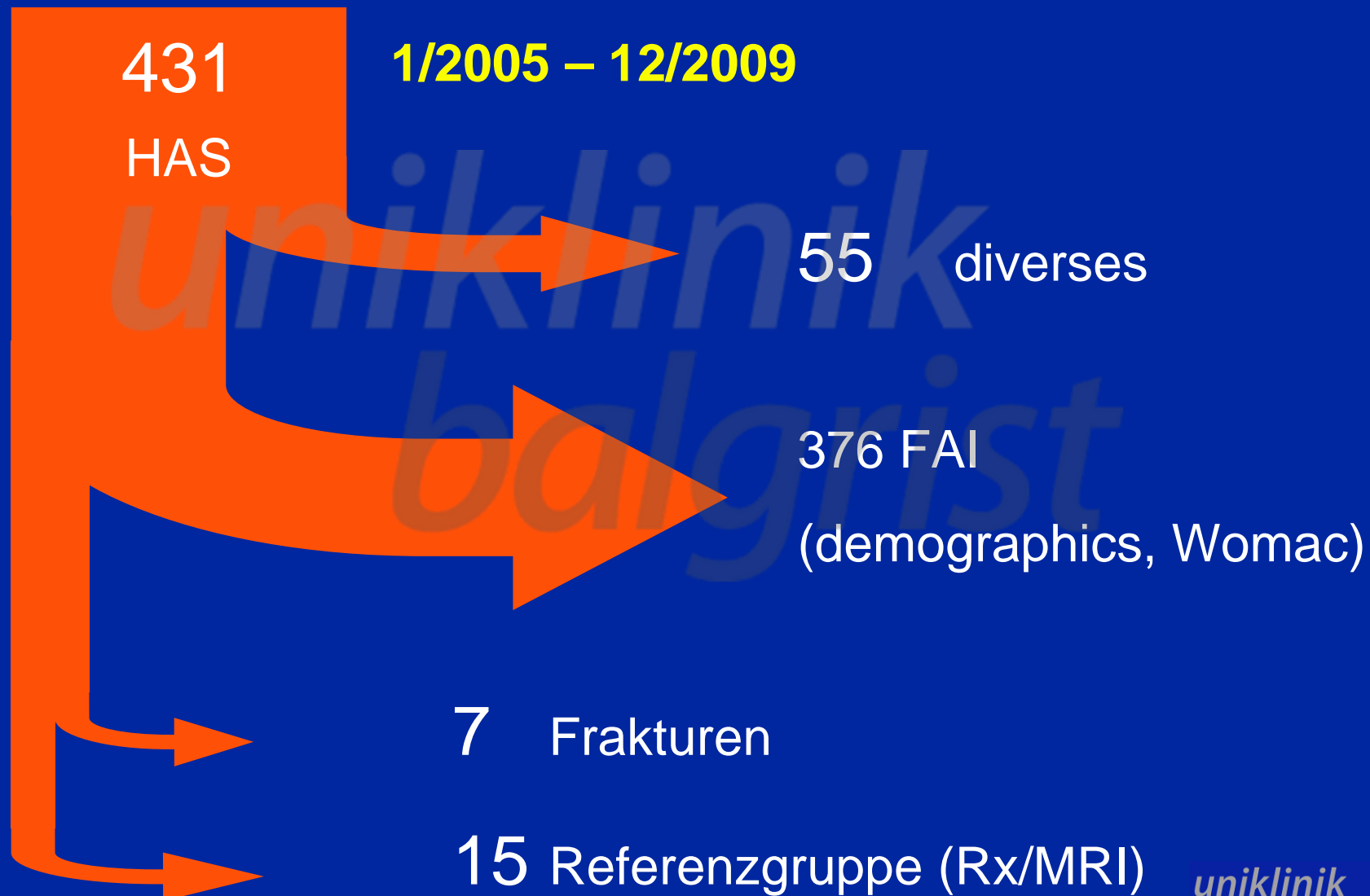


RESTBESCHWERDEN: allgemein

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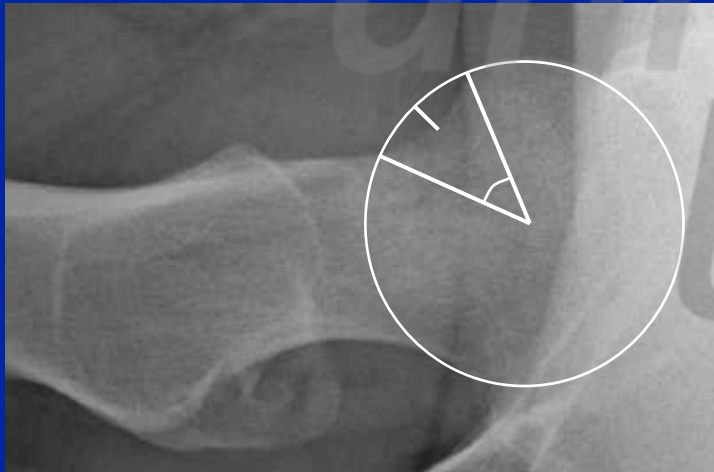


STRESSFRAKTUR



STRESSFRAKTUR

Resection depth



fracture

(n=7)

21.8 %

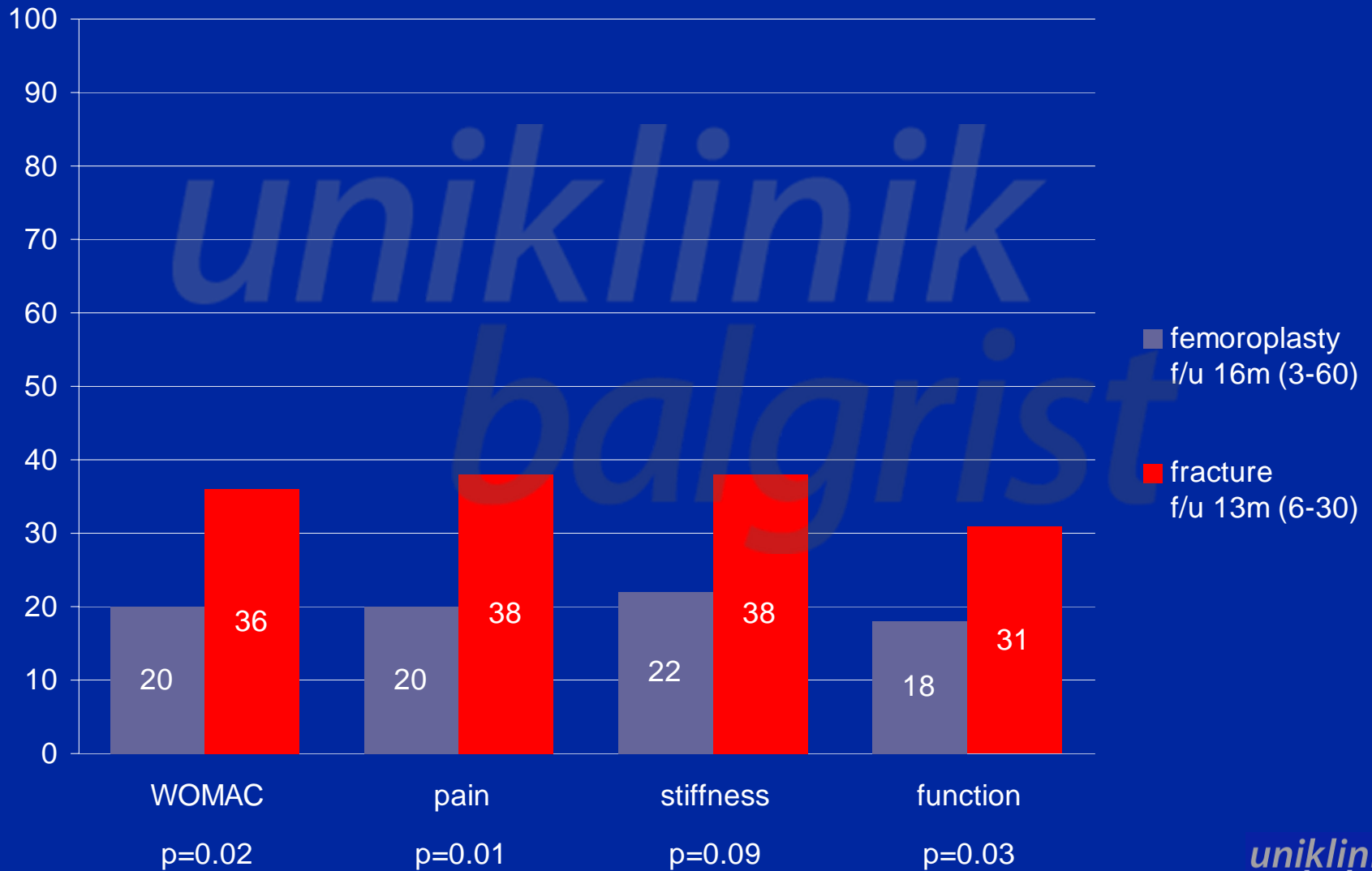
reference

(n=15)

16.3 %

p=0.02

STRESSFRAKTUR



STRESSFRAKTUR

- rate 1.9%
- inadequate trauma 4.4 weeks (2 – 12)
- risk factors
male $p=0.001$
age > 44 y $p=0.01$
resection depth: >20%
- outcome (1y) impaired



HÜFT-TP NACH ARTHROSKOPIE

primary THR
(n= 486)

- same implants
- same technique

jan 2005- dez 2007

HAS
n=22

study
n=18

exc
n=4

Inclusion

- THR after failed HAS

Exclusion

- prior hip surgery

HÜFT-TP NACH ARTHROSKOPIE

primary THR
(n= 486)

- same implants
- same technique

study
group
n=18

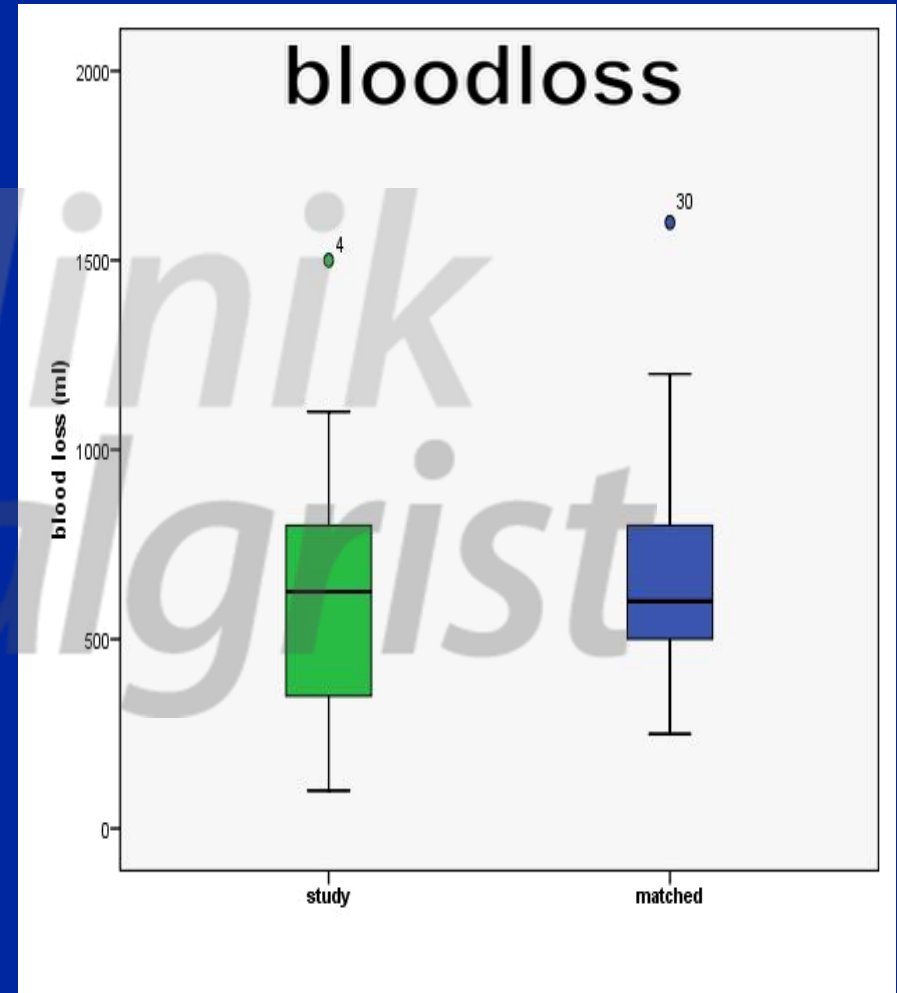
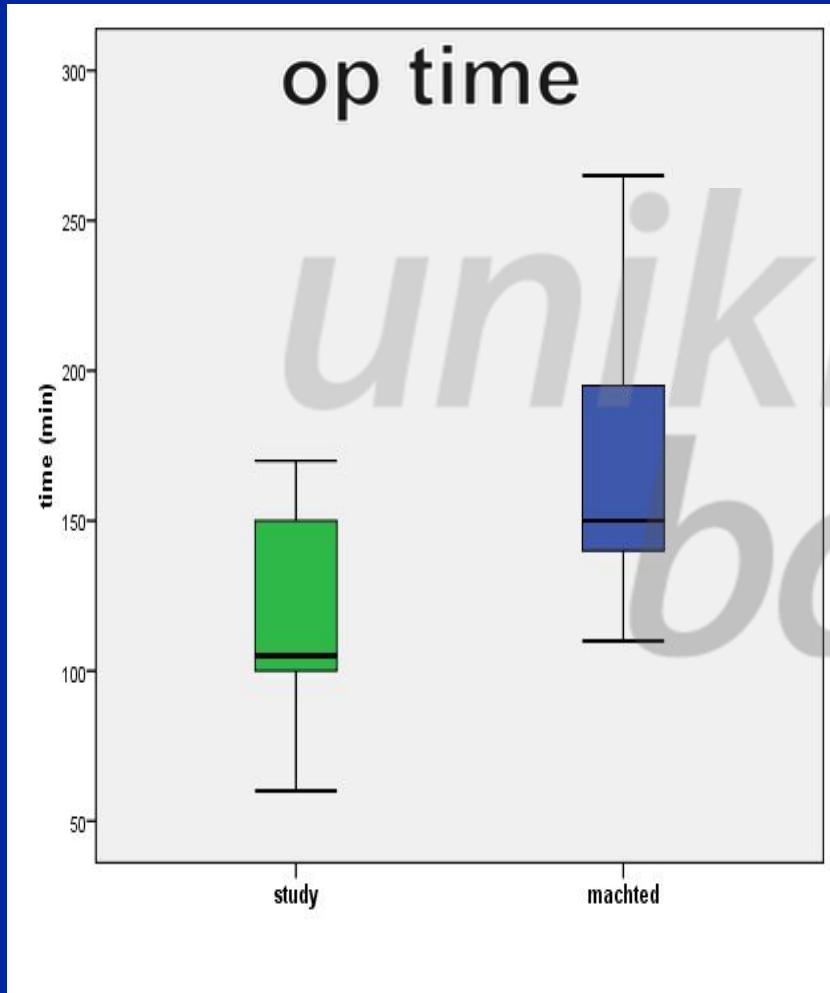
matched
group
n=36

matching criteria

- age
- gender
- BMI
- Charnley Classification¹

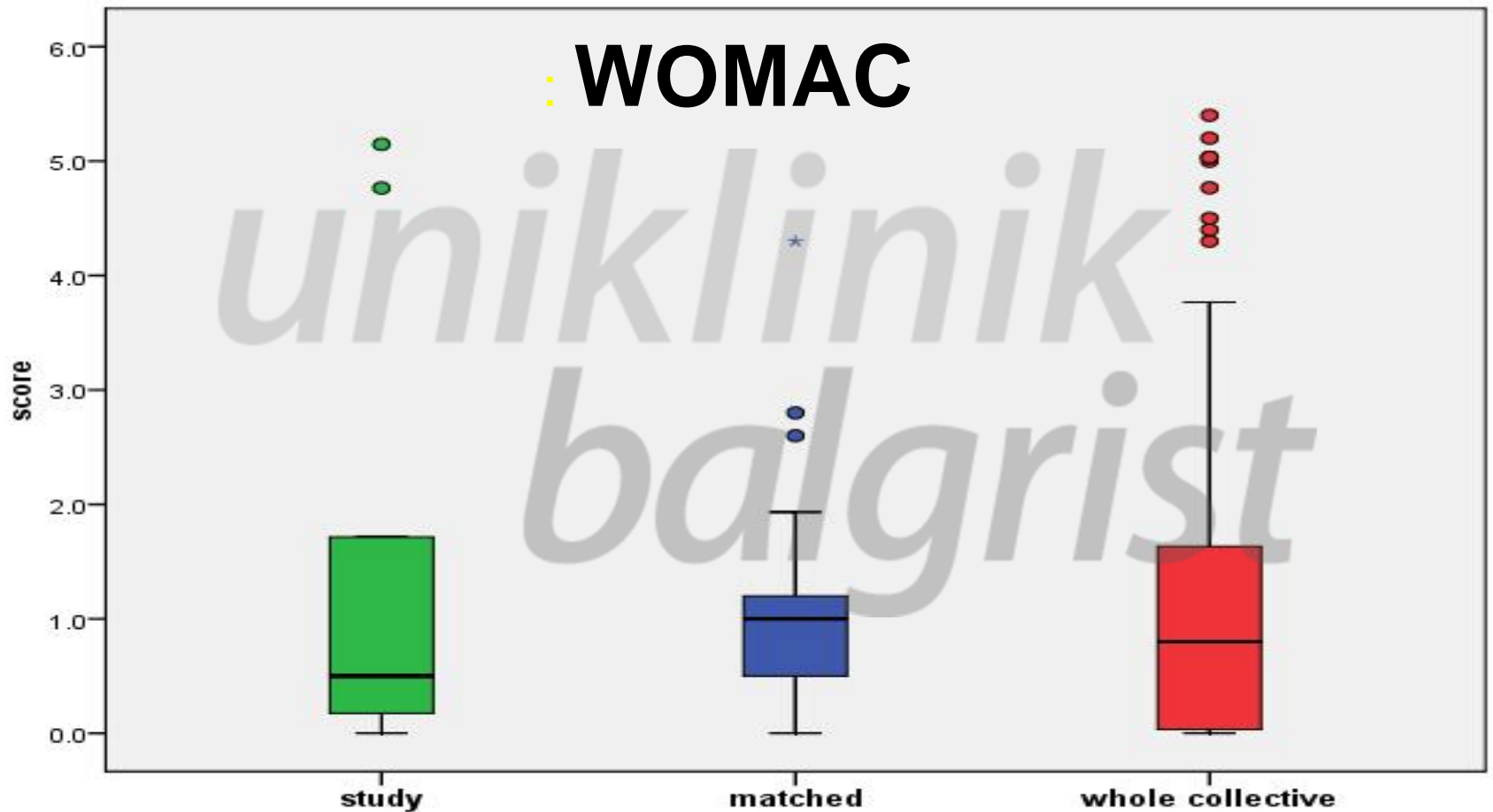
¹ Charnley J, JBJS Br, 1972 Feb;54(1):61

HÜFT-TP NACH ARTHROSKOPIE



ns (Mann-Whitney test; $p > 0.05$)

HÜFT-TP NACH ARTHROSKOPIE



ns (Mann-Whitney test; $p > 0.05$)

*uniklinik
balgrist*

