age-adjusted classification system of the German Association of Orthopaedic and Trauma Surgery 14

Grade Percentage preoperatively Percentage postoperatively Percentage actual

G1 (n=73)/G2 (n=66)/G3 (n=7)

G4 (n=63)

17

8

G1 (n=73)/G2 (n=66)/G3 (n=7)

3

36/40/0

54/49/100

G1: group 1 (all hips); G2: group 2 (all non-revised hips); G3: group 3 (the 7 revised hips);

TABLE E-I: Preoperative, postoperative and actual radiographic measurements. The measurements were graded according to the

CCD-angle	1	31/34/0	38/38/43	29	
-	2	22/20/43	22/21/29	25	
	3	18/18/14	19/20/14	35	
	4	29/28/43	21/21/14	11	
acetabular index	1	7/8/0	63/64/57	76	
	2	14/15/0	25/23/43	11	
	3	36/35/43	8/9/0	3	
	4	43/42/57	4/4/0	10	
acetabular angle	1	31/32/14	95/94/100	72	
	2	29/28/43	3/3/0	14	
	3	35/26/14	1/2/0	3	
	4	15/14/29	1/1/0	11	
ACM-angle	1	1/2/0	4/5/0	65	
-	2	11/12/0	19/21/0	21	
	3	32/34/14	33/35/14	8	
	4	56/52/86	44/39/86	6	
CE angle	1	4/5/0	70/73/43	65	
	2	14/14/14	8/9/0	24	
	3	50/55/0	11/11/14	6	
	4	32/26/86	11/7/43	5	
SHF	1	3/3/0	29/32/0	65	
	2	7/8/0	23/23/29	10	

G4: group 4 (the 66 non-revised hips minus the 3 hips without actual follow-up radiograph); SHF: summarized hip factor ^{20,21}

33/35/14

15/10/57

Salter and Dubos

Mäder et al.

Gallien et al.

Waters et al.

Moulin and Morscher

Dutoit and Messikomer

Blamoutier and Carlioz

Windhager et al.

Gulman et al.

Mellerowicz et al.

Böhm and Brzuske

Author(s)

_	_	_	_	_

1974

1984

1988

1988

1990

1990

1990

1994

1998

2002

TABLE E-II Long-term results after Salters IO

Year

1979

30 16 12 157 20 40 (18)(22)

9

29

16

63

43

52

52

73

No. of

hips

110

Remarks 1

primary operation group

secondary operation group

(after failure of previous treatment)

all cases

"failed cases"

"properly performed SIOs"

hips with preoperative AVN

excluded

reoperations - 3; coxa

magna - 4; clinical result:

excellent and good - 7; mediocre - 5; poor - 4

clinically excellent: 81%,

6 true revisions: re-SIO - 1.

Pemberton - 2, Chiari - 3

clinically excellent and

good: 79%

Remarks 2

combined open reduction and

SIO

SIO alone

only good results

combined open reduction and

SIO in 75%

reduction and IO combined - 1.

preoperative open reduction - 13

SIO and ITO combined - 21

9% complications (infection,

dislocation)

Age at

operation

(Years)

1.9 (1.1-9)

4.2 (2-7.3)

2.5 (1.5-5.4)

3.1 (1.1-5.7)

4.1 (1.5-18)

3.8 (1.5-10)

4.1 (1.3-8.8)

1.5-8

2.8

1.5-4

4-10

1.5-4

4-10

Follow-up

(Years)

5.5 (1.5-11)

10-16

7.3 (0.5-18)

24

9.3 (3-14)

15.7 (10-24)

11.6

11.3(10-13)

13 (8-25)

9.5

31 (26-35)

Radiographic results

Severin	
93.6% excellent or good	5.7%
56.7% excellent or good	
100% excellent or good	0%
91.6% excellent or good	
61.1% excellent or good	30% AVN due to pretreatment and 6.4%
	cartilage necrosis,
	7.7% following SIO
	(all after combined open red. and SIO)
100% good	preexistent in 20%
	another 5% following SIO
	5% due to SIO
440/ 11 4 1	42% due to pretreatment
44% excellent or good	
68.1% excellent or good	110/
78% excellent or good	11%
97% excellent or good	3.7%
but 3 (10%)	
reoperations	
63% excellent or good	6%
SHF grade 3 and 4 in	?
29%	<i>t</i>
2970	
91% excellent or good	0%
or good	
71% excellent or good	63.3%
84% excellent or good	
80% excellent or good	60.3%
9	preoperatively type 1-4: 52.8%
	preoperatively type 2-4: 30.5%
	6 months postoperatively type 1-4: 60.3%

6 months postoperatively type 2-4: 27.4%

AVN

Improvement of

acetabular index

12°

12°

17°

8°

12°