

## 3.75 5 YEAR RESULTS

### SICOT MEETING ABSTRACT ORAL PRESENTATION SESSION

09:30 11:06 on Wednesday 21<sup>st</sup> April 2000

Session OP 26 HIP Metals, Ceramics and AVN

Chairman: David Charles Davidson Co-Chairman: Bernard Zicat

### METAL ON METAL RESURFACING OF THE HIP WITH HYBRID FIXATION, OUR FIRST 100 CONSECUTIVE CASES.

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**Purpose** To ascertain if metal-on-metal resurfacing arthroplasty of the hip performs better than historical metal on polyethylene resurfacing designs. **Method** Clinical and radiological assessment of the first 100 of 811 hybrid resurfacings has been undertaken with a patient follow-up of 45-61 months. The average age at operation was 48.5 yrs. (18-74 yrs.). All procedures were performed through a posterior approach without trochanteric osteotomy. Clinical assessment was made according to the Merle-D'Aubigne scale. Radiographs were examined for radiolucent lines, migration of components, osteolysis and heterotopic ossification. **Results** The clinical and radiological outcomes are excellent with no cases of dislocation, femoral neck fracture, avascular necrosis or osteolysis. Complications were one infection and one femoral loosening. **Conclusion** Early to medium term assessment indicate much better outcomes than historical metal/polyethylene resurfacings.

## 5 - 6 YEAR RESULTS

### THE JOURNAL OF BONE AND JOINT SURGERY

*VOLUME 82-B 2000 ORTHOPAEDIC PROCEEDINGS SUPPLEMENT II*

### RESULTS OF METAL ON METAL HIP RESURFACING

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From February 1991 we have been performing hip resurfacing using metal on metal bearings. A pilot study of 119 resurfacings with three different fixation methods identified optimum fixation as Hydroxyapatite coated uncemented cups and cemented femoral components. From March 1994 one of us (DJWM) has performed 1085 consecutive hybrid fixed hip resurfacings. 294 were of the McMinn type and 791 were Birmingham Hip Resurfacings. The mean age in this hybrid fixed group of patients was 53 years. In the 294 McMinn Resurfacings 5 hips have failed and required revision surgery. Reasons for failure 2 infections, 2 cup loosening and one femoral head collapse in a patient with pre-existing A.V.N. In the 791 Birmingham Hip Resurfacings 5 hips have failed and required revision surgery. Reasons for failure 4 femoral neck fractures and one collapsed femoral head from A.V.N. The cumulative survival rate in these hybrid fixed resurfacings is 98% at 5-6 years.

We have assessed fixation by measurement of migration on both the acetabular and femoral sides of the hybrid fixed resurfacings. On the acetabular side we have compared the migration of the resurfacing cups to the Harris-Galante cups using the Nunn method.

Migration of the resurfacing cups was 0.015mm/yr N.S.D. to Harris-Galante cups. On the femoral side we have compared the migration of the cement fixed resurfacing femoral component to the Exeter cemented femoral component using the Walker method. The resurfacing components migrated significantly less, 0.031mm/yr than the Exeter components, 0.098mm/yr (p= 0.022).

206 patients who had Birmingham Hip Resurfacings (27 bilateral) were surveyed to determine their return to work status. All of these patients were in paid employment prior to the development of their hip arthritis. All 206 patients returned to work at a mean time of 7.1 weeks after surgery. Of these 206 patients 169 were participating in recreational or competitive sport.

Hip resurfacing using metal on metal hybrid fixed components offers a viable treatment alternative for the young patient with hip arthritis.

### Devices Implanted

Year	Device	Units Sold		TOTAL
		UK	Export	
1991-1997	Corin McMinn	900		900
				<b>900</b>
1998	Cornet	20		20
1999	Cornet	110	35	145
2000	Cornet	300	220	520
2001	Cornet	462	310	772
2002	Cornet	690	1073	1763
				<b>3220</b>

### Clinical Results

Derek McMinn is the only surgeon reporting long-term results with the Corin Resurfacing Device. Steve Krikler (Coventry), Peter Howard (Derby) and Michael Bishay (Bath) have all reported short to medium term results to Corin, and these are included in the NICE submission. These can be summarised as follows:

Surgeon	Number Implanted	Period	Average Age	Number Revised	Comments
McMinn	294	1994-1997	53	5 (1.7%)	2 x Infections 2 x Cup Loosenings 1 x Femoral Head Collapse (pre-existing AVN)
Krikler	124	1995-2001	50.2	3 (2.4%)	1 x Infection 2 x Femoral Neck Fracture
Howard	110	1998-2001	47	0 (0%)	1 x Femoral Neck Fracture, spontaneously healed 3 x Possible Loose Cups awaiting outcome
Bishay	66	2000-2001	53.6	1 (1.5%)	1 x Loose Cup following post-operation fall, cup replaced with larger size

## REFERENCE MATERIAL AND BIBLIOGRAPHY OF OTHER PUBLISHED DATA

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