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MINIMUM 7 YEAR OUTCOME OF BIRMINGHAM HIP RESURFACING (BHR)

A REVIEW OF 1354 CASES FROM AN INTERNATIONAL REGISTER.

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The traditional treatment of Total Hip Replacement, though reasonably successful in elderly relatively inactive patients, offers unacceptably poor long term outcomes for young, active patients. This often results in a saga of multiple revisions and associated complications. The Birmingham Hip resurfacing belongs to a group of novel prosthetic designs, Metal on Metal Hip Resurfacing (MOMR), which offer a potential solution to the young patient. The procedure is "bone conserving", and in the event that a revision might become necessary there is still a virtually intact femur making a primary THR possible.

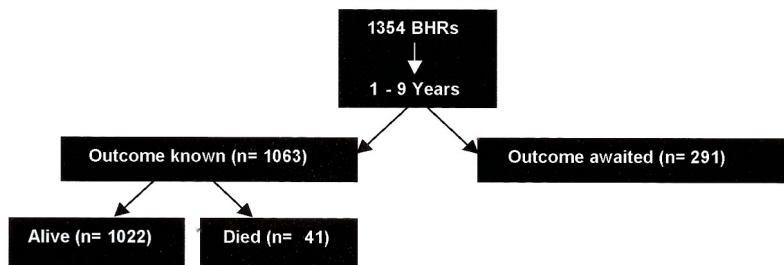
AIM

Utilising an international register we assessed a large cohort of 5000 consecutive, primary BHR independently at 1-9 years:

- To give an independent assessment of outcome of 1354 hips having reached a minimum of seven year follow-up.
- To assess a revision rate of the BHR consistent with the British National Institute for Health and Clinical Excellence (NICE) recommendation of less than 1% per year.

MATERIALS AND METHODS

- Patients: 1226
 - Male: 850 Female: 504
- Average Age at op: 52.7
 - Range: 19.58 – 84.51 yr <65yr: 57.3%
- Hips: 1354
- Surgeons: 45
- Countries: 8
- Period: 1997 – 2006



Volunteering patients were entered in the study by their surgeon. Information included operative and clinical details. Pre/post-operative patient based questionnaire, Oswestry Hip Score (OSHIP), were collected annually together with standard satisfaction ratings and questions concerning any subsequent surgery performed or other complications on the same hip.

Pre-operative diagnosis:	Primary Osteoarthritis:	60%
	CDH/Dysplasia:	4%
	AVN:	3%
	Rheumatoid Arthritis:	1%

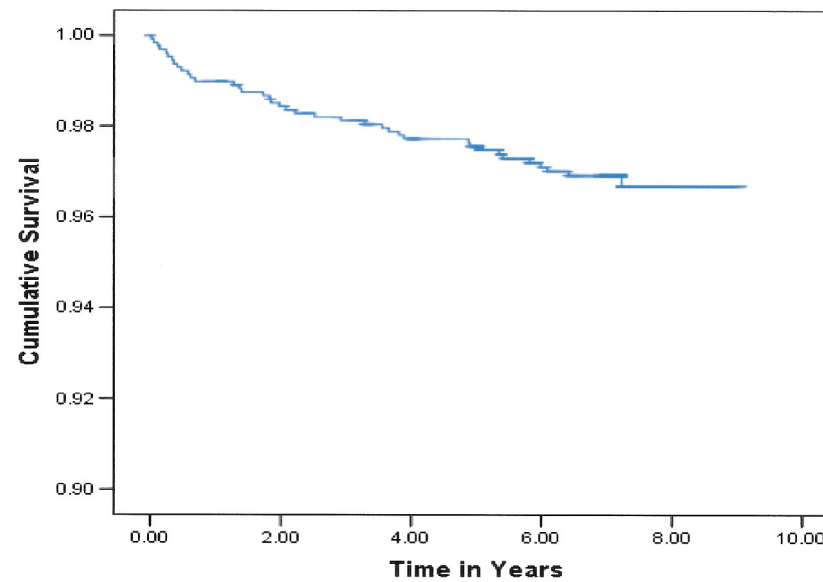
SURVIVAL ANALYSIS

Kaplan Meier method was used to evaluate survival of the implant with regards to revision where either stem or cup was removed for any reason. (See Fig 1)

Life Table analysis indicates a survivorship of **96.87%** at 7 years (95% CI : 95.72 ~ 97.73)

RESULTS

Kaplan-Meier Survival Function



Mean OSHIP Score (Self-assessed modified Harris)

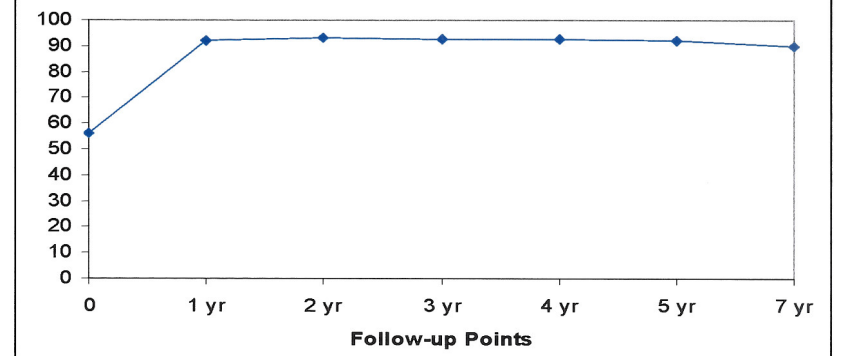
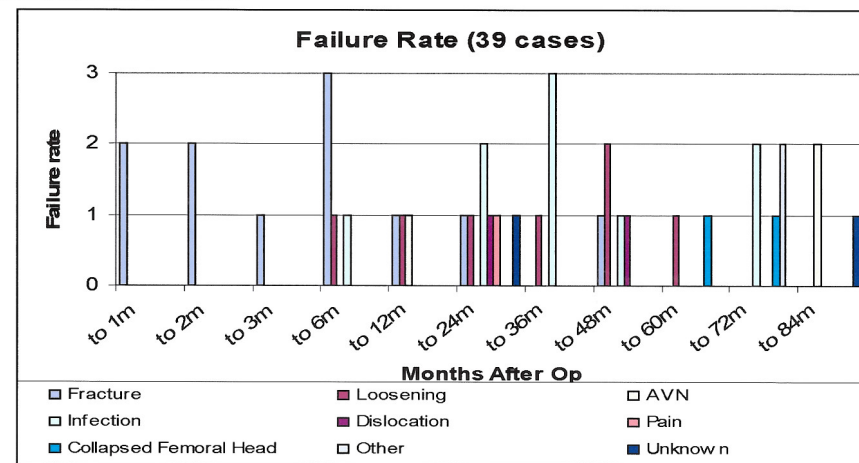


Fig.2 – Progress of scores for BHR patients from pre-op to 7 years.

The mean score pre-operatively was 55.9 which rose to 92 at 1 year and remained relatively constant through to 7 year : 90 (Fig.2)

COMPLICATIONS

Failure Rate (39 cases)

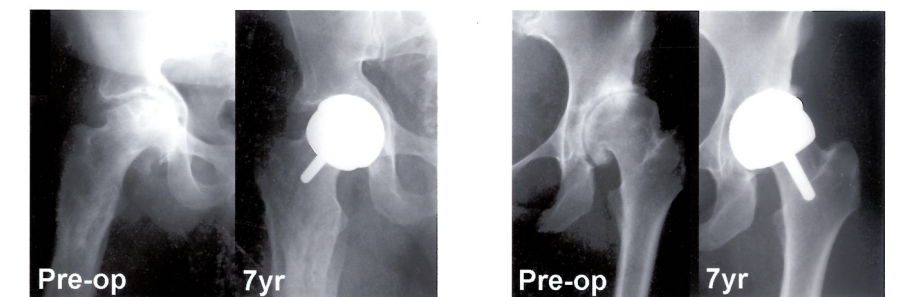


SATISFACTION

Patients were asked to state how pleased they had been with their BHR at 7 year point. 1015 patients reported to be :

Extremely pleased:	86.4%
Pleased:	12.1%
No different:	1.1%
Worse:	0.4%

CASES



This 58 year old had a BHR for post traumatic osteoarthritis. Cup rather open in position but patient asymptomatic and can run for 1 hour.

This 43 year old Social Worker had a BHR for osteoarthritis and obtained full function.

CONCLUSION

- Survival of the BHR at 7 years was 97.2%.
- Hip scores were high and well maintained.
- Patients were pleased to extremely satisfied in 98.5% of cases.

Taking all evidence together the BHR achieves excellent results at 7 years in an independent multi-centre study.