

Fig. 2

Kaplan-Meier survivorship curves of the three threaded cups with loosening as the endpoint.

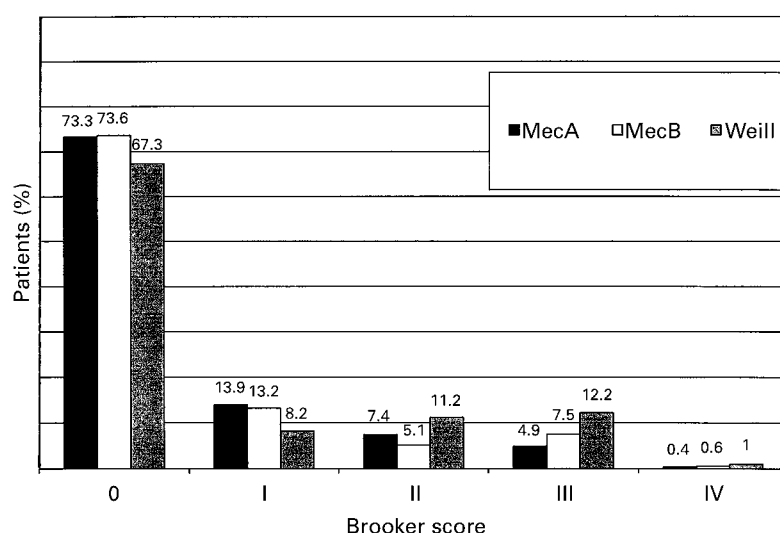


Fig. 3

Ectopic ossification as assessed by the Brooker score.

**Table V.** Hip score according to Merle d'Aubigné and Postel<sup>10</sup> (maximum 12 points) in the three groups by percentage

	Poor (<8)	Middle (8 to 9)	Good (>10)
MecA	25.4	15.5	59.1
MecB	35.1	15.3	49.5
Weill	24.6	16.4	59.0

**Table VI.** Mean (sd) Merle d'Aubigné and Postel<sup>10</sup> hip score related to loosening in all three groups

	Stable	Loose	p value
Pain			
MecA	4.86 (1.76)	3.82 (2.5)	<0.05
MecB	4.31 (2.15)	4.09 (2.21)	NS
Weill	4.81 (1.91)	4.71 (2.22)	NS
Ability to walk			
MecA	4.43 (1.43)	3.78 (1.48)	0.06
MecB	4.23 (1.50)	3.56 (1.33)	NS
Weill	4.05 (1.63)	4.2 (1.48)	NS

able of 703 hips for full assessment. Signs of loosening of the cup were seen in 46 hips (6.5%) and of migration in 60 hips (8.5%) (Table III). Signs of definite loosening were present in 71 hips (10.1%). Table IV shows the complication rate (surgical revision or loosening). The risk of loosening increased with time and increased rapidly after five years (Fig. 2). The gender, age and weight (Broca index) of the patients did not influence loosening.

**Ectopic ossification** (Fig. 3). Signs of heterotopic ossification were seen in 27% of patients, but severe ossification was present in only four. There was no significant difference in heterotopic ossification between the different threaded cups (chi-squared test).

**Clinical assessment** (Tables V and VI). About 70% of our patients had good or acceptable results as measured by the hip score. No significant difference was found in pain and ability to walk between patients with or without signs of loosening, except for pain in the MecA group.

## DISCUSSION

Aseptic loosening of endoprostheses presents a major challenge at revision, especially in cement removal and loss of bone stock. Cementless THAs were developed to overcome some of these problems, but worse results have been reported in comparison with 'traditional' cemented endoprostheses.<sup>2,3</sup> In our experience cementless fixation of the femoral component gives good middle-term results, but the acetabular component may produce problems.<sup>4</sup>

The threaded fixation of the acetabular component gives good primary stability with only a small variation due to differences in design.<sup>11</sup> The short-term results were encouraging,<sup>12,13</sup> but in more recent studies with a maximum follow-up of seven years high rates of failure have been reported.<sup>4,7,14,15</sup>