

Thirty years ago Tapper and Hoover<sup>1</sup> introduced their functional assessment of the knee after meniscectomy recognising that the outcome after a common orthopaedic intervention merited objective assessment. An excellent result was defined as an asymptomatic knee with a full range of movement and no episodes of swelling. Although there would inevitably be some deterioration of the joint with time, excellent function was often enjoyed in the longer term.<sup>2-6</sup> A good result, consisting of minor symptoms after vigorous activity, with an occasional effusion but no loss of movement, may also be lasting and indeed most reviews in the literature tend to group excellent and good results together as an expression of the satisfaction of the patient both in the early and late postoperative periods. Whether it is fair to include intermittent discomfort and swelling as a surgical success can be debated because leniency in assessment of the knee after meniscectomy cannot disguise the fact that entirely normal function is often lost.

A marked difficulty arises when separating the results of meniscectomy from the effects of pre-existing lesions of the articular surfaces and the ligaments. The enthusiastic adoption of total meniscectomy half a century ago,<sup>7</sup> based upon distrust of the residual meniscal rim and the flawed concept that a better tissue would fill the resultant articular space, was because it was technically impossible to grapple out a meniscal flap or tear without a total or subtotal removal. Whereas the untoward effects of this operation were clear to see at follow-up, especially if a normal meniscus had been removed, it is now much harder to separate the result of meniscal dysfunction from that of subsequent partial meniscectomy.

Inherent in the Tapper and Hoover<sup>1</sup> scale was the recognition that meniscal extirpation may make things worse, with the fair and poor grades describing symptoms which

prevented vigorous activity or interfered with everyday activities because of stiffness and effusions of increasing severity. Such problems engendered a reluctance to submit patients to the ravages of open total meniscectomy, particularly when the symptoms were a product of degenerative changes within several structures of the knee. There is still little to suggest that the retention of an abnormal meniscus will lead to greater deterioration within the knee than occurs after total meniscectomy. The prevention of arthritis can never be used as a reason for meniscal excision, particularly when the symptoms do not convincingly suggest an obstructive lesion.<sup>8,9</sup>

The realisation that major removal of meniscal tissue, especially the peripheral rim and its meniscosynovial junction, was injurious has led to the practice of conservative surgery. The advent of the arthroscope allowed greater precision in the excision of only the segments of the meniscus which were overtly unstable.<sup>10</sup> A series of papers 15 years ago confirmed that arthroscopic intervention reduced hospitalisation and convalescence, and that partial meniscectomy was to be preferred to total meniscectomy.<sup>11-15</sup> Conversely, total medial meniscectomy was difficult to achieve arthroscopically and the important buttress of the posterior meniscal rim was therefore left to continue the roles of load transference and sagittal stabilisation.

We are now at the stage when longer-term results are being reported, both after open total or arthroscopic subtotal meniscectomy.<sup>2,4-6,16-18</sup> Postoperative studies by Noble and Erat,<sup>9</sup> Jørgensen et al<sup>5</sup> and Hede et al<sup>3</sup> confirmed that approximately four out of five patients do well. More accurately, most patients are reported to be 'satisfied', although a 'good' outcome in accordance with the Tapper and Hoover<sup>1</sup> grading tends to predominate over the 'excellent' results. Unfortunately, a precise comparison of the reviews in the literature is impossible because the case mix of patients, the extent of other pathological variables in the knee and the criteria for postoperative assessment differ from report to report. Schimmer et al<sup>6</sup> described a deterioration in the success of the outcome with time, with good or excellent results reducing from 91.7% at four years to 78.1% at 12 years. If, however, the knee had revealed no other arthroscopically visible lesion at the time of operation, a good or excellent outcome was achieved in the longer term in 94.8% of their patients. If there had been

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0301-620X/00/210847 \$2.00  
*J Bone Joint Surg [Br]* 2000;82-B:157-9.