ARTHROSCOPIC DRILLING OF OSTEOCHONDRAL LESIONS OF THE KNEE

P. J. RAE, J. NOBLE

Osteochondral lesions are drilled with the aim of stimulating the growth of new cartilage to cover the defect (Pridie 1959). This may be performed at arthrotomy or arthroscopically, but arthroscopic drilling is far from standard practice. Performed percutaneously, arthroscopic drilling by Kirschner wire can be hindered by difficulty with accurate placement, skidding off sclerotic bone and entanglement with soft tissues. A needlescope sheath (Guhl 1982), an instrument cannula or the operating arthroscope's instrument channel

curetted with a small Volkmann's spoon to remove fibrous tissue and loose bone. The drill guide is then inserted and precisely positioned under arthroscopic control. Through it, a drill-mounted 2 mm Kirschner wire is introduced and accurately directed by the surgeon (Fig. 2). Several drill holes can be made in the subchondral bone by simply re-positioning the guide. Immediate mobilisation is encouraged post-operatively, and full weight-bearing is allowed if the defect is small. **Results.** In all 14 patients treated by this technique the

Fig. 1

Fig. 2

(Dandy 1981) have been used to avoid these problems, but bring problems of their own. We tried using a 3.2 mm AO drill guide, but this was often too short, the serrated tip caught in the soft tissues during insertion, and there was excessive play at the tip of the wire. We therefore designed a new guide with a longer shaft of 80 mm, and a narrower bore of 2 mm (Fig. 1). The tip is smoothly bevelled to facilitate insertion, and to avoid damaging the articular surface.

Technique. A diagnostic arthroscopy is carried out, and loose bodies are first removed arthroscopically. The lesion from which they have arisen is inspected, using a blunt hook. Loose articular cartilage at the periphery of the defect is removed and the base of the crater is

symptoms have been improved significantly. There have been no complications. All the patients have been able to mobilise the knee immediately and have gone home, on average, within eight hours.

Discussion. We believe that in treating osteochondritis dissecans, arthrotomy is still widely used. The advantages of arthroscopic surgery are obvious and when drilling is indicated, we strongly recommend it. The drill guide described overcomes the difficulties experienced with earlier arthroscopic methods, so that the operation can be performed easily and rapidly.

We wish to thank the Department of Orthopaedic Mechanics at Salford University for manufacturing the new drill guide.

Although none of the authors have received or will receive benefits for personal or professional use from a commercial party related directly or indirectly to the subject of this article, benefits have been or will be received but are directed solely to a research fund, foundation, educational institution, or other non-profit institution with which one or more of the authors is associated.

P. J. Rae, FRCS, Senior Orthopaedic Registrar
J. Noble, ChM, FRCSE, Consultant Orthopaedic Surgeon
Department of Orthopaedic Surgery, Hope Hospital, University of Manchester Medical School, Eccles Old Road, Salford M6 8HD, England.

Correspondence to Mr P. J. Rae.

© 1989 British Editorial Society of Bone and Joint Surgery
0301-620X/89/3R16 \$2.00
J Bone Joint Surg [Br] 1989;71-B:534.

REFERENCES

- Dandy DJ. *Arthroscopic surgery of the knee*. Edinburgh etc: Churchill Livingstone, 1981.
- Guhl JF. Arthroscopic treatment of osteochondritis dissecans. *Clin Orthop* 1982;167:65-74.
- Pridie KH. A method of resurfacing osteoarthritic knee joints. *J Bone Joint Surg [Br]* 1959;41-B:618-9.