The drugs are now available to reduce the blood pressure to normal on a long-term basis and with acceptable side effects. Patients who have shown themselves to have a particularly severe form of hypertension, such as those with malignant hypertension, should, however, be categorised as at high risk and be followed up regularly at a specialist centre.

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Diagnostic aids in the knee

When, as often happens, the diagnosis of a torn semilunar cartilage is uncertain, exploratory arthrotomy may not always be a wholly satisfactory way of resolving the dilemma. Complete inspection of either (let alone both) of the cartilages is not possible through one non-destructive incision. Removal of the cartilage on suspicion alone is not easily justifiable: the menisci have important load-distributing functions,[1] and osteoarthritic changes, albeit mild, are frequent after meniscectomy.[2]

The first defence against needless meniscectomy remains caution in the diagnosis of a torn cartilage. Locking is a particularly unreliable sign, mimicked by many other soft-tissue injuries in the acute stage. When damage to a cartilage is suspected the knee should be treated expectantly and watched for the characteristic recurrent symptoms that come with time and provocative exercise. Even then repeated pain, swelling, and giving way can be caused by other conditions such as loose bodies, a subluxing patella, chondromalacia, or major rotational instability. Localisation of the lesion may easily be mistaken, lateral meniscus injuries being notoriously misleading. Examination of the knee under an anaesthetic may be helpful; important ligamentous laxity should not be overlooked, and in posterior tears the noises obtained by rotating the flexed tibia on the femur may be suggestive. But for greater precision of diagnosis an internal derangement of the knee nowadays will often merit more elaborate investigation.

Arthroscopy gives the surgeon a chance to inspect the menisci without the disability that follows formal arthrotomy—indeed, in many respects it even gives a better, though still not a complete, view, the peripheral parts of the posterior thirds being most difficult to see. Suspicion of a bucket-handle tear or a tear of the free margin may be readily confirmed, though these are among the easier injuries to diagnose confidently on clinical grounds.

Double-contrast arthrography can show the whole of each meniscus, including the posterior thirds, in considerable detail. The technique demands the time of an interested radiologist for the injection of the contrast media, the positioning for radiography, and most of all the skilled interpretation of the films. Depending on the contrast medium chosen, a temporarily painful reaction may follow, and there is always a small risk of complicating infection.

The value of these procedures depends greatly on who does them. In enthusiastic and expert hands both arthroscopy and arthrography have been credited with well over 90% accuracy, but everyone may not do so well. In three studies[3–5] of their relative value the clinical diagnosis was correct in 72, 72, and 85% of cases, arthroscopy in 94, 94, and 68%, and arthrography in 78, 77, and 83%. The errors of both arthroscopy and arthrography were mostly false-negatives, but a few tears were diagnosed where none existed. Clearly no method is infallible and any may succeed where the others fail. For precise diagnosis in a difficult case the help of both investigations will be called for. The findings will still have to be assessed in terms of the clinical picture.

The indication for meniscectomy is not a diagnosis alone but the disability the lesion is causing—after all, rather more than half of us will be tolerating at least one split meniscus before we die.[6] Arthroscopy and arthrography are useful aids to diagnosis when the disability would justify operation if the result of the investigation proves positive. They may be of great help both in speeding essential surgical treatment when time is precious and conversely in avoiding operation when it is not likely to succeed. They offer an improved chance of diagnosis and hence cure in knees with vague or atypical symptoms. They will not always produce a clear answer, and meniscectomy will still on rare occasions be indicated on clinical evidence alone. Increasingly, however, if standards are to improve these very useful techniques must become routine.

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Correction

Coal-mining and mortality

In the leading article on "Coal-mining and mortality" (10 November, p 1169) lines 13 and 14 of the last paragraph should have read "fivefold difference in the prevalence of pneumoconiosis between collieries mining high-rank and low-rank . . ."