Arthroscopy still has a role in the diagnosis of Internal Derangement of Knee.

Sir,

MRI has been shown to be accurate in the assessment of Internal Derangement of Knee (IDK) when compared to Arthroscopy in specialist centers. The relative value of the two methods in a District General Hospital setting, with limited MRI facilities, is less certain. We aimed to determine the relative value of the two methods in a District General Hospital setting. A retrospective study was carried out on 68 patients who were consecutive referrals from the Emergency Department. There were 62 males and 6 females. Their ages ranged from 16 to 68 years (mean 29 years). The patients were seen by one of the two Consultant Orthopedic Surgeons in the Outpatient Department. A clinical examination was carried out and diagnosis recorded for each patient. All patients had an MRI scan of the involved knee, using a 1.5 tesla machine. Two plane T1, T2 and proton density images were taken. The studies were reported by one of the two Consultant Radiologists. The clinical findings were known to the Radiologist at the time of reporting. Arthroscopy was carried out by one of the two Consultant Orthopedic Surgeons who had examined the patient in the Outpatient Department. The surgeon had prior knowledge of the MRI finding. Arthroscopy was taken as the standard against which MRI was compared. The recorded history showed that 66 patients complained of pain in the affected knee. Twelve patients had experienced an episode of locking, all were meniscal injuries. Seven patients gave a history of the knee giving way, all had anterior cruciate ligament (ACL) injuries. Swelling was complained of by only five patients. The predominant mechanism of injury was football trauma which involved 42 patients. In 15 patients, the mechanism of injury was recorded as a fall and in 12 patients the mechanism was unclear. In total, 84 pathologies (menisci & ACL) were noted at arthroscopy of the affected knees. There were 59 patients with ACL and/or meniscal pathologies. Two patients had loose bodies; 2 had softening of the patellar cartilage and 5 patients had completely normal knees. Isolated injuries, such as medial meniscus or lateral meniscus or ACL was found in 37 patients. The most common isolated injury was a medial meniscus tear seen in 26 patients. Combined injuries were noted in 22 patients. The most common combined injury was medial meniscus with ACL seen in 15 patients. Twenty medial menisci were found to be normal, 15 (75%) were correctly identified by MRI. Thus there were 11 false negative interpretations and 5 false positive interpretations using MRI. The positive predictive value was 88% and a negative predictive values was 58%. The sensitivity was 77% and specificity 75%. Twelve lateral menisci were found to be torn on arthroscopy; 9 (75%) of these were correctly identified by MRI. Fifty six lateral menisci were found to be normal at operation; MRI correctly identified 50 (89%) of them. Thus, there were 3 false negative and 6 false positive interpretations by MRI. The positive predictive value was 60%; the negative predictive value 94%; sensitivity 75% and specificity 89%. The overall values for MRI of the medial and lateral menisci combined were, positive predictive value 74%, negative predictive value 76%, sensitivity 76% and specificity 82%. Only 10 (41%) out of the 24 ACL tears identified at operation were correctly identified by MRI. There were 44 normal ACL at operation. MRI identified correctly 42 (95%) intact ACL's. The positive predictive value was 83%; the negative predictive value was 75%. MRI had a sensitivity of only 42% for ACL tears. The specificity was 95%. (Table 1). If MRI, which is a non-invasive investigation was consistently accurate.

<table>
<thead>
<tr>
<th>Arthroscopic Tears</th>
<th>Number of Lesions</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Negative Predictive Value</th>
<th>Positive Predictive Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anterior Cruciate Ligament</td>
<td>24</td>
<td>42%</td>
<td>95%</td>
<td>75%</td>
<td>83%</td>
</tr>
<tr>
<td>Posterior Cruciate Ligament</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lateral Meniscus</td>
<td>12</td>
<td>75%</td>
<td>89%</td>
<td>94%</td>
<td>60%</td>
</tr>
<tr>
<td>Medial Meniscus</td>
<td>48</td>
<td>77%</td>
<td>75%</td>
<td>58%</td>
<td>88%</td>
</tr>
</tbody>
</table>

Sensitivity = true positive/(true positive + false negative); Specificity = true negative/(true negative + false positive); Negative predictive value = true negative/(true negative + false positive); Positive predictive value = true positive/(true positive + false positive).
in the diagnosis of Internal Derangement of Knee (IDK), it would eliminate much of the need for diagnostic arthroscopy. A number of papers have suggested that the accuracy of MRI in the diagnosis of IDK is so high that diagnostic arthroscopy becomes unnecessary. Our study, however, showed that MRI had a sensitivity of 76% and specificity of 82% for meniscal lesions. These results are within the accepted range as reported by various authors. The results for ACL injuries were out of the accepted range, and very disappointing with a sensitivity of only 42% but a specificity of 95%. The reason for these poor results may be two fold. Out of the 14 false negative results for the anterior cruciate ligaments, 9 had avulsion from its femoral attachment. This has been reported previously to be a difficult diagnostic problem. The reason given is the presence of thick synovial tissue and fat around the area of attachment which makes MRI visualization difficult in this area. The reason for missing the other 5 tears remains obscure, even after a careful second review. The other reason for these poor results for the ACL could be the lack of 3D facilities in our setting. This facility has certainly shown to increase the accuracy of diagnosis of IDK by MRI. We think that in a District General Hospital setting with limited facilities for MRI and lack of 3D imaging, arthroscopy still remains the investigation of choice for the diagnosis and treatment of Internal Derangement of the Knee.

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XIlth International Aids Conference,
Geneva Switzerland. Bridging the Gap.
The triple-cocktail euphoria has waned.

Sir,

The theme of this AIDS conference was “Bridging the Gap” between those who can, and those who cannot afford, or even have access to the expensive antiretroviral drugs that were highlighted before in the 11th International Conference on AIDS, Vancouver, Canada in 1996. Around 12,000 delegates worldwide attended the Geneva Conference. These people were a great gathering of scientists, policymakers, international communities, living with AIDS/HIV, AIDS activists and much more. Here, the author will try to give some excerpts from this meeting.

United Nations AIDS Office (UNAIDS). Reported that on the global scale 30 million people are now living with HIV infection, and around 6 million were infected in 1997, giving a staggering figure of 16,000 persons infected every 24 hours. However, 12 million deaths were recorded since 1981. A vast gap exists in the world of AIDS. Unfortunately, 90% of the 30 million infected with HIV live in sub-saharan Africa, Asia, Latin America, countries of the Commonwealth of Independent States (CIS), and Eastern Europe. Most of those people have no idea that they are infected. A release of the first 3-Dimension image of the virus was projected in the conference using X-ray crystallography technology. This new picture represents a milestone in the HIV story, as it could pinpoint the HIV vulnerabilities and it also shows that HIV is a sophisticated virus. On the other hand, though we know much more about this virus, yet an effective treatment, or a practical vaccine is still many years away. The triple-drug cocktail since became the standard treatment for HIV infection, and after great hope for its “curative” value, as was declared in Vancouver conference, the picture became a blurred one. The recent tests have shown that HIV finds sanctuary sites where the virus “sleeps”, and is ready to flourish as soon as the drug cocktails are withdrawn.

Reports from a recent study at the University of California, San Francisco had shown that in a group of 136 cocktail-patients that started this regimen since 1996, more than 50% of them have suffered treatment failure, mostly due to the drug complications. However, 74% of cocktail-patients can't follow the strict regimen and can't tolerate the side effects that vary from anemia, diarrhea, kidney stones, diabetes, to abnormal fat re-distribution producing paunches, humps on the trunk and back of

References