Patients’ Recollection of Day Case Knee Arthroscopy Procedure

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Abstract
A prospective study of 103 consecutive patients who underwent day case knee arthroscopy was performed. The purpose was to evaluate the information delivery system, patient comprehension, and issues of informed consent pertaining to day case arthroscopy procedures. There were 34 females and 69 males in the study group and their mean age was 38.6 years (range: 14.4 to 74.9 years). The diagnosis, procedure, and aftercare were explained to the patients in the outpatient clinic by a trained nurse and by the operating surgeon just prior to the operation. The nurse before the operation gave the patients an information booklet. Postoperatively the patients were informed about the findings and diagnosis prior to their discharge from the day care facility. Patients were requested to complete a questionnaire. Three weeks later they were given the same questionnaire, prior to consultation, in the outpatient clinic. These two forms were compared with the operative findings and diagnosis documented in the copy of the questionnaire completed by the surgeon as well as the case notes. Most patients (38.8%; 40 patients) had no recollection; 3.9% (4 patients) had partial recollection at their consultation three weeks later; 19.4% (20 patients) found that the arthroscopic photograph was not helpful in making them understand the procedure; and 9.7% (10 patients) found the information booklet to be unhelpful. Further, 23.3% (24 patients) said that it would not help if the booklet were sent to them prior to the operation. The recollection rate was also correlated to their position on the operating list, to ascertain the effect of the anesthetic. There was a 65.9% (58 patients) recollection rate in those patients who were on the first half of the list and there was only a 33.33% recollection rate in those patients who were last or second to the last \( p = 0.0225 \). We recommend regular evaluation and improvement in the communication and information delivery system provided to patients.

Arthroscopy of the knee as a day case procedure forms an important element in practice of any orthopaedic knee surgeon. The Audit Commission, The Royal Colleges, and political climate surrounding the delivery of health care have encouraged day case care for patients undergoing arthroscopic knee surgery.1 Several audits have been done to evaluate the knee injuries, short stay benefit, complication rates, and cost benefits of this service.1-4 There is no study that has evaluated the information delivery system, patient comprehension, and medicolegal impact of this service. The purpose of our study was: 1. To evaluate patients’ comprehension and recollection of day case arthroscopy and improve information delivery system for these procedures and 2. To evaluate the effectiveness of informed consent and postoperative counseling.

Materials and Methods
A prospective study of 103 consecutive patients who underwent day case knee arthroscopy at this institute was done. There were 34 females and 69 males in the study group and their mean age was 38.6 years (range: 14.4 to 74.9 years). The diagnosis, procedure, and aftercare were explained to the patients in the outpatient clinic, at pre-assessment by a trained nurse, and by the operating surgeon just prior to the operative procedure. Before the operation the nurse gave the patients an information booklet. Postoperatively the patients were informed about the operative findings and diagnosis prior to their discharge from the day

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care facility. Patients were also given an explanation of the anatomical structure damaged and the reparative procedure performed – an anatomic model of the knee was used to enhance their understanding. Patients were requested to complete a questionnaire, which asked them the details of their diagnosis and the procedure (Table 1). Another copy of the questionnaire was completed by the surgeon who did the knee arthroscopy and was kept on file for later comparison with the patients’ responses. Three weeks later the patients were given the same questionnaire, prior to consultation, in the outpatient clinic. These two forms were compared with the operative findings and diagnosis documented in the questionnaire completed by the surgeon as well as case notes. To minimize bias, a surgeon who did

| Table 1 Questionnaire Completed by Patients and Surgeons |

**Your Operation**
During your operation, surgery was performed upon (please check)
- The meniscal cartilages
- The anterior cruciate ligament
- The articular cartilage (bearing surface of the knee)
- Patella surface
- Synovial plica
- Loose body in the knee
- Other

**What was done?**
Meniscal cartilages (please check)
- These were:
  - Trimmed
  - Removed entirely
  - Reconstructed
  - Repaired

Anterior cruciate ligament (please check)
- This was:
  - Repaired
  - Removed
  - Trimmed

Articular cartilage (please check)
- This was:
  - Smoothed down
  - Microfractured
  - Washed out

Patella surface (please check)
- This was:
  - Assessed for tracking abnormalities
  - Underwent lateral release
  - Was smoothed down
  - Was washed out

Synovial plica (please check)
- This was:
  - Removed

Loose body within knee (please check)
- This was:
  - Removed

Some of you following surgery will have been given a picture of the internal appearance of the knee to help you understand the procedure.
Did you find this helpful? Yes/No

**Patient Information**
At the time of your operation you were given a patient information booklet to help you understand the procedure of Arthroscopy and what you might expect in the recovery phase.
Was this helpful? Yes/No
Would it help if this booklet was sent to you prior to operation? Yes/No
Are there any other points you think might be helpful or informative that we might usefully add to the arthroscopy day case service in the orthopaedic department?
Results
Most patients (38.8%, 40 patients) had no recollection, 3.9% (4 patients) had partial recollection at their consultation 3 weeks later, 4% said they did not receive any pre-operative information, and 1% of patients were not sure whether they received any information. Furthermore, 19.4% (20 patients) found that the arthroscopic photograph was not helpful in making them understand the procedure, 9.7% (10 patients) found the information booklet to be unhelpful, 23.3% (24 patients) said that it would not help if the booklet were sent to them prior to the operation, and 10.6% (11 patients) commented that it would help if they were taught some physiotherapy exercises prior to the operation. The distribution of the pathology and the number of patients who did not recollect are shown in Table 2. The two patients whose diagnosis was categorized as “other” in Table 1, had removal of an Acutrack screw from the femoral condyle.

General anesthesia was administered to all patients in this study. The recollection rate was also correlated to their position on the operating list, to ascertain the effect of the anesthesia (Table 3). There was a 65.9% (58 patients) recollection rate in those patients who were in the first half of the theater list and there was only a 33.33% recollection rate in those patients who were last or second to last on the theater list [p = 0.0225].

Discussion
A high percentage of patients did not understand or recall their knee pathology either in the immediate post-operative period or at consultation three weeks later, despite having been provided with information leaflets and extensive pre-operative and postoperative bedside consultation by the operating surgeon. This limitation in patients’ understanding of their health care has direct implications in the process of informed consent. It is sometimes unclear whether or not consent has really been obtained even if the surgeon has taken care to explain the proposed procedure and its complications. After knee arthroscopy one counsels and plans further management for the patients. Some patients go on to have ACL reconstruction, some undergo total knee replacement. Our results infer that the patients may not fully comprehend the future implications of these procedures and the impact of their knee pathology on their livelihood.

We realize from this study that patients were less likely to understand their procedure and treatment if they were last or second to last on the operating list. About two-third of the patients had poorer recollection of their procedure if they were fifth or sixth on the theater list, whereas those who were earlier on the list tended to remember better (about two-third of the patients). This difference was significant. This may be due to the residual effect of the anesthesia. Whereas the interval of operation and discussion with the patient was 3 hours or more for those in the first half of the list, it was 2 hours or less for the last 2 patients on the list. We therefore recommend that sufficient time should be provided to patients in order to allow them to recover from the anesthesia before discussing the details of their case and the follow-up procedures. In view of these findings we have, therefore, modified the way in which we provide information to our patients in order to improve information delivery.

There was no correlation between patient recollection and the pathology that was confirmed during arthroscopy. Although the proportion of number of patients not recollecting seem to be more for certain criteria and conditions like patella surface problems, articular cartilage wear, ACL tear, and no pathology (Table 2). However the difference is not significant, which could be due to small number of patients in this study.

Even after our painstaking effort to explain the post-operative care to each patient before the operation and on three different occasions, our results indicated that a substantial number of patients did not understand the information that was provided. Pre-operatively discussing the care and arthroscopy procedure in the outpatient setting and in the day unit twice (once by the nurse at

| Table 2 Distribution of Pathology and Recollection Rate |
|---------------------------------|-----------------|-----------------|
| Diagnosis                       | Number of patients | Number of patients did not remember |
| Meniscal tear                   | 67               | 22              |
| Patella surface                 | 11               | 6               |
| Articular cartilage             | 7                | 2               |
| ACL tear                       | 6                | 4               |
| Loose body                     | 5                | 1               |
| None                           | 5                | 5               |
| Other                          | 2                | 0               |

| Table 3 Relationship of Position on the List with Recollection Rate |
|---------------------------------|-----------------|-----------------|
| Position on the list            | Number of patients | Number of patients did not remember |
| First                           | 23               | 9               |
| Second                          | 23               | 9               |
| Third                           | 21               | 5               |
| Fourth                          | 21               | 7               |
| Fifth                           | 12               | 9               |
| Sixth                           | 3                | 1               |
pre-assessment and once by the knee surgeon just prior to the operation) was not enough. We found that 23.3% of patients wanted the information booklet sent to them by mail. Nearly 20% (20 patients) of patients found that the arthroscopy photograph was not helpful for their interpretation; and 40% of these patients did not recollect what was done to them during the arthroscopy. It is also interesting to note that of the patients who did find the photographs helpful, about 20% could not remember the procedure, diagnosis, or treatment, and 4% only partially remembered their treatment procedure.

Doyal emphasized the importance of communication with patients. The comprehension of competent patients may be compromised by their illness, their educational and social background, and by other aspects of their personalities that may make them overly anxious or unwilling to listen. The question then remains, how should the orthopaedic surgeon demonstrate to himself, his peers, and most important a magistrate in court of law that they have done their best to inform the patient about their diagnosis, treatment, after care, and prognosis?

Indeed it is very important to work constantly to improve one’s communication ability. The General Medical Council, the British Medical Association, and the American Orthopaedic Association, stress this point, and its importance is underlined by the increasing emphasis placed on communication skills within medical education. It is of paramount importance to keep a written record in the case notes of the discussion and explanation given to the patient about their procedure and treatment. It is a physician’s moral duty to explain to the patient the details of their condition and the prognosis. This helps build trust and a bond between the physician and patient. One of the main reasons of increased litigation is the breach of this trust. Despite physicians’ best efforts to provide information to patients so that they understand their medical condition, there can be occasions when the patient will not comprehend. It is better, then, to choose another occasion when the patient may be less stressed and therefore more receptive to the information being provided.

In the medicolegal context it is very important to consider that if the physician believes he or she has successfully informed the patient, but the patient claims that he did not understand the information that was provided, then the legal decision may favor the patient.

What is good information delivery? The physical surroundings during discussion should be conducive to easy and quiet conversation. The surgeon should not stand threateningly over the patient, should not be rushed, and should exhibit empathy toward the patient. The language of discussion should be simple, and when serious matters are being discussed it is better to have a friend or a relative with the patient. The presence of a nurse is also helpful. Through the results of our study we have come to realize that booklets are not sufficient in and of themselves for patient information, and it may be worthwhile experimenting with audio recording of the interviews with the patient pre-operatively and postoperatively and video recording with commentary of the arthroscopy procedure. This video can be given to the patient when he returns home.

Having attempted to provide clear information, it is then important to ask the patient to review what has been said in their own words and ask them, on several occasions, whether they have any questions. Surgeons may have time limitations and may think that giving a limited amount of information may be less distressful for the patient. All competent individuals have the right to decide what is and what is not in their best interest, even if what they decide is not endorsed by their professional advisors. It would not be morally acceptable for a solicitor or accountant to withhold information from their clients on the grounds that they did not want to distress them about the possibility of losing a court action or of going bankrupt. The moral obligation of the surgeon is no different.

Therefore we conclude that it is important to excel in information delivery, to improve the delivery methods in order to provide patients with a better understanding of their health and prognosis and thus better able to provide truly informed consent.

References