V. Pacault-Legendre · J.P. Courpied

Survey of patient satisfaction after total arthroplasty of the hip

Accepted: 3 July 1998

Abstract We have carried out a prospective study based on a series of interviews and written questionnaires completed by 45 patients who underwent surgery, in an effort to evaluate subjective patient satisfaction while recovering from total hip arthroplasty. These patients all had operation for primary osteoarthritis and none had previously experienced orthopaedic procedures or psychiatric pathology. Our study demonstrated that using standard quality-of-life questionnaires to evaluate patient's subjective assessments is difficult, if not impossible. It also established the need to combine questionnaires and open-ended interviews in order to reveal subjective elements that should be taken into consideration by the surgeon before deciding upon the need to operate. The analysis of the data collected in this study highlights the fact that 50% of the patients express feelings of frustration during a three month-long period following the operation, in spite of their experiencing actual improvements of the operated hip. This phase of temporary frustration winds down easily but it is only a year after undergoing arthroplasty that some patients will enjoy all the subjective benefits of the operation.

Résumé Nous avons réalisé une étude prospective comprenant une série d'entretiens associés à des questionnaires pour 45 patients opérés afin d'évaluer la satisfaction subjective après arthroplastie totale de la hanche. Tous ces malades étaient vierges de chirurgie orthopédique antérieure, sans pathologie psychiatrique et la hanche opérée présentait une dégénérescence arthrosique. Cette étude a montré l'impossibilité ou la difficulté d'utiliser les questionnaires traditionnels de qualité de vie pour pouvoir prendre en compte la subjectivité des malades. Elle a aussi montré la nécessité d'utiliser des ques-

tionnaires associés à des entretiens libres afin d'accéder aux éléments subjectifs qu'il faut prendre en considération d'une part au moment où le chirurgien pose l'indication opératoire et d'autre part pour l'évaluation du résultat d'une prothèse totale de hanche. L'analyse des données recueillies dans cette étude met en évidence que la moitié des malades traverse une période de déception située environ 3 mois après l'opération, alors que la hanche va déjà objectivement très bien; cette période de dépit transitoire se résout facilement mais c'est seulement un an après l'arthroplastie que certains malades ont tiré tout le bénéfice "subjectif" de l'intervention.

Introduction

In total hip arthroplasty unexpected results in some patients indicate that it is necessary to take into account additional subjective elements which are peculiar to every individual, and which are hard to quantify [13]. The purpose of surgical intervention is to improve the patient's quality of life, focusing mainly on physical pain and functional deficiencies. Some individuals live a life burdened with affective or psychological problems that have little to do with physical discomfort, while others are likely to avail themselves of a minor physical discomfort in order to claim that surgery has vastly improved their condition. This discrepancy and the corresponding non-verbalized feelings must be perceived and identified in order to evaluate the benefit to the patient of surgical procedures. This evaluation will minimise the problems posed by an objectively excellent surgical result, contrasting with a sense of failure and frustration in the patient. Indeed, the satisfaction of the patient who has undergone functional surgery does not always match the surgeon's own evaluation.

Objectives of study

Several studies have shown [6] that patient satisfaction after total arthroplasty of the hip is contingent on the re-

V. Pacault-Legendre
Department of Psychiatry, Cochin Hospital, 27,
rue du Faubourg Saint-Jacques, F-75014 Paris, France

V. Pacault-Legendre (✉) · J.P. Courpied
Department of Orthopaedic Surgery, Cochin Hospital, 27,
rue du Faubourg Saint-Jacques, F-75014 Paris, France
Tel. +33-1-4234-1739

covery of emotional self-reliance in everyday life; this is influenced by relief from pain, adequate mobility and stability of the operated hip [5, 7, 11]. Do the standardised modes of quality-of-life evaluation and questionnaires reflect subjective reality [2]. The AIMS2 standard [9] that was used in a previous study is of little use given that the variations of the standard are not correlated with the patient's general appreciation of the benefits of hip surgery. Similarly, a detailed study of a large sample [14, 15] shows that the patients' apparent expectations are fairly homogeneous; this *patient-specific index* is considered most reliable but fails to take into account the subjective appreciation of the patients. Likewise, standardised methods of evaluation (e.g. AIMS, EMIR) [10] only allow for what is measurable and quantifiable. We decided that allowing for the patient's subjectivity is a prerequisite to any evaluation of his or her satisfaction with the results of surgery; elaborating on this finding is the first objective of this study. Subconscious psychic motivations are instrumental in prompting an individual to assign a certain degree of satisfaction to different parts of his or her life; they are also instrumental in determining the result, that is, the individual's conscious assertion that he or she is indeed satisfied [12].

The questionnaire helped us to guide the interview without providing a standard of evaluation since it is useless to attempt to quantify something that cannot be measured. We strove to focus upon subjectivity, i.e. these human and individual aspects that cannot be elucidated without the help of the patient's own spontaneous discourse. Surgical practice shows us that actual results depend as much on technical performance as upon the patient's own ability to acknowledge the benefits of the operation. To date, the study of psycho-affective factors influencing the patients has been neglected despite the fact that these factors can alter significantly the desired results of a total arthroplasty of the hip [14, 15].

The second objective of this study is to outline the psychological factors, which warrant consideration by the surgeon before deciding whether or not to operate. Appreciation of the subjective singularity of every patient is crucial, if there is to be improvement in the relief brought about by total hip arthroplasty (THA) [1, 10].

Methods and material

Our open study concerned a continuous series of 45 patients who were under observation for at least 12 months prior to total arthroplasty of the hip for uncomplicated primary osteoarthritis. These patients had never been operated upon before and had no psychiatric disorder. We offered them the opportunity to participate to in this study of patient satisfaction in the aftermath of total arthroplasty of the hip. Three patients refused, on the grounds that they had no time to waste on discussions.

In the beginning, our group comprised 51 patients but six were excluded. A very old patient passed away on the eve of the consultation for anesthesia; another never came back for post-surgery consultations and four patients had a record of past minor orthopedic surgery, but failed to disclose it at the beginning of the study. Seventy-five per cent of the remaining patients were very happy to be given the opportunity to talk, while 25% merely consented to

do so, without enthusiasm. Each of these patients had a preoperative consultation with the surgeon who would operate on them. The operation was undertaken under general anesthesia by lateral approach with osteotomy of the trochanter. The Charney-Keboul cemented prosthesis was employed in every instance. After two or three days, the patients were able to walk again with the help of crutches, which were used for a month. Postoperatively, anti-inflammatory treatment was administered for 8 days, and a month-long vitamin K-based anti-coagulation treatment was prescribed.

Three different questionnaires were devised in order to provide a framework for the discussions with the psychiatrist. The first questionnaire was completed on the occasion of the anesthesia consultation, a month before the scheduled date for the operation. A second questionnaire was filled out three or four months after the operation and the last one was issued eight months later. The post-surgery questionnaires were distributed immediately before the follow-up consultations and a discussion with the psychiatrist was scheduled on that occasion.

At the beginning of every questionnaire the patient was asked to rank his or her condition on an analogical self-evaluated visual scale, which was non-graduated, ranging from very bad to excellent. Patients were also asked to indicate the region of the scale they hoped that their condition would be, after surgery. We measured this index (from 0 to 10 cm) after each meeting without communicating the result to the patient, who was unaware of the ranking of his or her previous choices.

The discussion with the psychiatrist lasted for 30 to 45 min on average and facilitated the collection of information concerning the affective and relational life of the patient, based on spontaneous and free-association-driven thoughts expressed in connection with hip surgery.

Pairing an interview with a questionnaire enabled us to become aware of the limitations of questionnaires. Often, the specific response to a given question turned out to be "false": typically, answers provided in the questionnaire were disappointing because of they were homogeneous on some points, whereas the results and the patients' comments were all different.

Results

The criteria used in the questionnaire and the interviews pertained to the following points:

Age

Ages of the patients ranged from 37 to 85-years old. Age did not seem to have any influence upon the patient's appreciation of his or her preoperative condition, or upon their prospective appreciation of the outcome.

Gender

Thirty-one patients were female and 14 were male. Before surgery, the expectations of the male patients on the visual scale ranged from 7.8 cm to 10 cm, whereas those of the females ranged from 5.6 cm to 10 cm. The first postoperative assessment did not yield any clear-cut differences between the male and female patients' appreciation of their condition on the visual scale. On subsequent interviews women tended to use detailed and nuanced expressions, whereas the men tended to express themselves in brief sentences which featured many superlatives, whereby feelings of satisfaction of disappointment

are described in equally intense fashion. After surgery, 75% of males surveyed conjured up imaginary representations of the prosthesis expressed in mechanical terms, whereas only 20% of women did so. For the women patients, the description of the prosthesis was almost always expressed in irrational terms.

Occupation

Sixteen subjects were unemployed, 8 had a vocational skill and 21, including 10 who were retired had an intellectual professional activity. Occupation did not seem to have any bearing on the results of the survey. This was a puzzling finding, as it would be expected that active professionals would recover sooner and display higher rates of satisfaction with THA.

Area of residence

Some patients lived in inner-city apartments, while others were domiciled in suburban or rural single-family houses. These factors did not influence the subjects' attitudes and expectations.

Family environment

The subject's status as married or single, with or without children, or as grandmothers with varying degrees of involvement with the rest of the family did not have any significant impact upon attitude to THA.

Surgical and medical record

The first exposure of the patient with to the surgical environment did not seem to have any influence on the outcome of the treatment. The patients' descriptions of their previous medical experiences provided clues to their affective relations with medicine, surgery and sickness. These descriptions made it possible to better circumscribe the intricate nature of their perceived functional discomfort and pain, based on an overlay of existential elements.

Other ongoing treatments

Sustained medication during the months preceding the operation often contributed to the masking of other sources of TPA-related pain.

Delays incurred before the operation

The length of the delay preceding surgery varied between 4 months and 10 years. The duration of the lag did

not seem to have affected the patient's evaluation of the results.

Quality of patient/surgeon relationship

Thirty-three patients referred to the working relationship with their surgeon as being "excellent" while 12 of them termed it "good". Two of latter said "so far".

Previous exposure to tha through a friend or a relative

Contrary to our expectations, previous exposure to THA through the experience of a relative, friend or colleague had no influence on the level of satisfaction. THA provided yet another element in the structure of the patient's relationship to that person.

Preoperative apprehension

The answers went as follows: no angst in 15 cases, some in 16 cases, a lot in 10 cases and quite a lot of it in the remaining 4 cases. No significant correlation with post-surgery satisfaction or the recovery of bodily autonomy was found.

The patient's ability to evaluate his or her functional discomfort

Any difficulty that the patient may have in evaluating his or her functional discomfort on the occasion of the interview preceding surgery would immediately catch the surgeon's attention. Some patients did not seem to be able to verbalise the discomfort affecting their hip. This difficulty was independent of their educational background. It did not point to verbal deficiencies, but rather to strong affective feelings centered on the hip, at the crossroads of psychic or emotional life and the mechanical aspects of the body. These patients did not dare to formulate their expectations or hopes. Everything was trivialised and rendered in syntactically thin comments such as "this must change, things aren't going well"; these patients expected a great deal from surgery, and their expectation originated with their most intimate subjective desires. This lack of distance between the desire of the subject and his or her expectations in relation to the damaged hip is likely to turn into a source of dissatisfaction and may even lead the patient to perceive that the operation had been a failure. This attitude can be traced to "lean" preoperative comments, which are apt to be associated with more detailed and pronounced feelings of frustration expressed at the first postoperative interview.

Evaluating physical or aesthetic changes

The immediate response to this question was always the same, "to limp no more", and sometimes "to walk more

straight". The patient thought of his or her life in the aftermath of the operation and how their transformed bodies could contribute to modify or improve their relational lives. Statements were made such as "lose weight, finally", or "to have a new leg, a life without handicap, something new..." "I do not know what, but something new in my life". Occasionally, comments came across as denials; "I am too old to worry about wearing bikinis now". At this point a somewhat neurotic nostalgia for youth threatened to offset the benefits of the operation. Aesthetic modification became the focus of the patients' varying degrees of frustration after 3 months in 50% of the subjects. At this point, the desired aesthetic modification did not always affect the hip: "I have aged, I have lost some hair", these modest comments highlight a transitional frustration. "I am still dragging my leg", "I am just limping differently", "I have a more prominent hip", "I have been told that I walk properly, but I am still limping in my mind, I still feel like I am limping and yet, it's over". Sometimes, comments focused upon scars: "it's too long", "I hope it's going to recede". A year later, after several months of putting forth various complaints, a patient told us "I like my scar!"

The global assessment visual scale (AVS)

This graduated range extends from 0 to 10. As measured in the preoperative questionnaire, the AVS ranges from 0.3 to 0.48 cm, with the exception of one condition evaluated at 6.8 cm. The prospective assessments of the postoperative condition range from 7 to 10 cm, with the exception of three conditions evaluated between 5.5 and 6.5 cm. In the third questionnaire, the patients' evaluation of their condition three months after surgery range from 4.7 to 9.9 cm. Some patients claimed that they were not satisfied even though they have matched or topped the desired or expected figures entered in the preoperative questionnaire. There was no clear correlation between the level of satisfaction and the original expectations. A year later, the final figure was always less than the figure which the patients had hoped for, with one exception, even for those patients who turned out to be satisfied. This finding seems to reflect an adjustment to reality and a positive appreciation of improvement.

Changes in one's professional and daily lives (Fig. 1)

Before surgery, the majority of patients regarded their condition as "fair" in daily life. They all hoped that surgery would improve their lot but not all of them expected "very good" results. Three months postoperatively, the majority of patients regarded their condition as either "fair" or "good". After a year, most of them thought of their condition as being "good" to "very good". Improvements in daily life during the first four months accounted for most of the satisfaction expressed by 50% of the patients in relation to their overall improvement. The in-

Fig. 1 Changes in professional and daily life: in dotted lines, changes in professional and daily life after one year, as foreseen by the patient before surgery, and by the surgeon 4 months after surgery

tense satisfaction experienced by 50% of the patients after surgery was real and lasting. Many factors contribute to it, the satisfaction of having overcome the decision to have surgery, the happiness that came with beginning a new period in life (an element that recurred in the history of the same patients), and a highly positive transfer in the relationship of surgeon to patient [4]. To them, coxarthrosis remains an accident that has no significance beyond that of an unpleasant occurrence that carries no feelings of guilt and is free of any neurotic dimension. It is nevertheless obvious that when asked to describe their present condition as either "very good", "good", "fair" or "bad", the majority of patients chose "good", not "very good", contrary to what their overall comments suggested. It is as if they still had to have something to look forward to, lest they felt that they gave up their ideal for good.

One patient formulated this choice very explicitly by adding that "very good" was not compatible with an artificial hip whose mobility was necessarily limited when placed in a body that "is no longer young". In our group, 50% of the patients expressed a transitional sense of frustration during the first three months; this feeling diminished and vanished in the course of a year. They were all surprised by the realisation that actual mechanical improvement was not necessarily matched by corresponding feelings of appreciation, as if it were too soon for them to enjoy the benefits of surgery. Some even told us: "one needs time to get used to it, the head has to catch up first". They complained about everything, the operated hip, the rest of their body, their very life. They reported a whole set of symptoms of depression [3] i.e. lack of desire or enthusiasm, sad thoughts, pessimism as to their future recovery, but kept hoping that the expected improvement, that most personal of matters, would materialise in time.

Fig. 2 Changes in recreational life and exercise patterns: In *dotted lines*, changes in recreational life and exercise patterns after one year, as foreseen by the patient before surgery

Fig. 3 Changes in relational and emotional life: In *dotted lines*, changes in relational and exercise life after one year, as foreseen by the patient before surgery

Changes in recreational life and exercise patterns (Fig. 2)

Before operation, most patients considered their condition to be poor and hoped it would become good, or even very good, after the operation. Three months after, there was actual but not spectacular improvement, and a year after the operation, their condition was practically always deemed good.

Changes in relational and emotional life (Fig. 3)

As far as relational life was concerned, the condition of most patients before surgery was fair to good and they also hoped to see it improve. For 12 of our patients, an

immediate connection was established between pain and the emergence of a character alteration (irritability). Some patients, who had described their original condition as being “bad”, said that it had “hardly changed” 4 months after surgery, deeming it “fair” at this stage. Others had described their original pre-surgery condition as “good” and found it “fair” during the second interview, while arguing that it had not changed either. Most comments on relational and emotional life were reasonable. The patients told us that “it’s not going to work like a magic wand for my partner...It won’t make me any younger”. There was also a hidden side, behind the denial, the secret hope that some improvement might still occur after all.

Changes in the patient’s sex life

Whenever applicable, patients indicated that they had resumed their sex life two to three months after surgery. The resumption of sexual activity did not bring any special comments and seemed to have proceeded normally for every individual.

Acknowledging satisfaction

In response to the question “have you been particularly happy about something”, 32 patients portrayed themselves as being very satisfied with their experience at the hospital, the primary care received and the relief from pain. Eight of them had overwhelming complaints and could find no positive outcome 4 months after the operation. Eight months later, the same patients had overcome this difficult phase and tended to bring up the positive aspects of their experience at the hospital, the medical staff, etc.

Facing the unexpected

Twenty-two patients in this study admitted to having been occasionally surprised by some development, while 23 of them said they had not been surprised. Various elements of surprise (fatigue, quick relief from pain, and the realisation that one may or may not have an attitude when dealing with others) emerged gradually through spontaneous comments or unrelated answers to further questioning.

Dealing with frustration

When questioned directly about their lack of satisfaction 4 months after operation, the patients were unable to provide subjective assessments and comments. They mainly focussed on their frustration with the lack of resources, e.g. the length of their stay at the hospital, which some of them found too short (the average

period was eight days), the food or the quality of accommodation.

The subjective (imaginary) representation of one's prosthesis

About 33% of the patients referred to their THA as either a good object or a bad one. In this context, the patient was given the opportunity to rationalise happiness or frustration with their present condition. The good object was described as a small mechanism with magical properties, which will remain part of the patient's life as a protective device of sorts. The bad object was described as a source of physical discomfort, pain and handicap for most daily activities; it was perceived as an inanimate yet threatening presence. Sometimes the metal wires that fastened the trochanter were assumed by patients to damage the bodily tissues and to "wound" them inside. Two of our patients complained about the "weight" of the prosthesis and its impediment to their future initiatives.

The prospect of blood transfusions

Many patients asked the surgeon various questions concerning blood transfusion. Everything was answered during the preoperative consultation and the patients had no spontaneous remarks to make on the subject afterwards.

The surgeon focused on the following issues during the consultation:

The clinical examination

Several consultations were needed before the surgeon established the need to operate and/or the modalities of the operation. These consultations helped evaluate the patient's physical discomfort and medical and surgical record. A clinical examination of the hip enabled the surgeon to evaluate the level of pain as well as mobility and stability.

Merle d'Aubigné and Postel grading scale [8]. Applied to our patient pool, this grading scale yielded a preoperative score largely below 11 and a score consistently above 15 three or four months after surgery. The scores recorded a year after the operation reached 17 or 18, representing outstanding results.

The analysis of preoperative radiographs

Radiological examination confirmed the presence of benign osteoarthritic changes, while the postoperative radiographs confirmed the lack of surgical complications for all 45 subjects.

Prospective evaluation of the operation's results, one-year ahead

On the occasion of the first postoperative examination, the surgeon recorded his assessment of the results expected for each patient. In this way, he kept an informed, albeit subjective; record of the satisfaction level he envisioned that each of his patients would reach within a year. We established that the surgeon's prospective estimate of his patients' satisfaction level was either very good (in 66%) or just good (in 33%). This evaluation was compared to the corresponding subjective selfassessment carried out by his patients during their postoperative reviews. Both sets of observations converged to the same conclusions a year after the operation. However, 50% of the patients surveyed immediately after the operation were unwilling or unable to foresee the ultimate improvement that the surgeon had envisioned for them.

Medical or surgical complications

None of the patients suffered any complications as a result of surgery.

Discussion

Standard quality-of-life questionnaires cannot provide a good assessment of a patient's subjectivity but they can be very enlightening if combined with an open-ended interview. Patients thought carefully before they provided answers what allowed them to straighten out the subjective elements. Their responses involved a critique of their first idea, which reflected the patients' subjective reality. A patient often followed up on the theme of a question and made spontaneous comments, which provided the investigators with a second, unsolicited, response. It was as if the question of the interviewer had to mature for a while before the patients were able to formulate a response, sometimes unknown to them, in a different context. These unsolicited words were not meant to provide answers to the examiner's questions but reflect the patients' sense of trust and allowed us to reconsider the problem they have with the damaged part of their body in a wider context, that of their relationship to their body at large, to others, to life itself. The answers given in the questionnaire were therefore inaccurate, but the questionnaires proved to be useful as they provided a framework for the interviews. They allowed us to offer a line of reflection and trigger a dynamic process of free-associations based on the themes of the operation and the total prosthesis. Hesitations and "modest harmless sentences" became the clues to evaluate the expectations and the satisfaction of the patients beyond what they would state explicitly, these were the clues we followed to access the patient's subjective world. It is in that world, beyond the answers to the standard questionnaire, that the surgeon can find elements that can help him decide on whether to

operate; on how to refine his understanding of the modalities of the operation; on how to take into account these elements that have tangible consequences on the outcome of the procedure, but cannot be easily quantified.

Evaluation should not be limited solely to the hip; this may create a misunderstanding or induce a sense of failure with the patient, given that he or she faithfully expresses the totality of his or her existential malaise. If need be, the surgeon who focuses on the damaged hip must acknowledge the patient's complaint in all its complexity and variety. If there is a repressed or transferred expectation centred on the damaged organ behind the patient's description of his or her problems [4], it is sometimes appropriate to consult with a psychiatrist whose familiarity with such pathologies will help the patient sort out and re-prioritise questions before the operation. This process will ensure that the patient reaps the benefits of the operation. On some occasions, after operation, the surgeon has had to reckon with overt reproach and occasionally aggressive expressions of frustration. The quality of the relationship between patient and doctor is instrumental in helping both sides cope with the situation during this phase of frustration. This is the delicate moment when it matters that the relationship between them is free of any power struggle, a "winner take all" kind of situation, whereby the surgeon would insist that "everything is fine" and the patient would counter something like "not really, doctor", "I wanted something else", "I was told otherwise". This is the time when all previous unfulfilled promises and disappointments encountered in the patient's life come back with a vengeance. If the patient's hip is deemed to be clinically and radiologically fit, it is critical that the surgeon patiently reassures the individual. It is of utmost importance that he should encourage the patient to wait and that he assures him that his condition will steadily improve, but in relative terms. Finally, it is critical that the surgeon should acknowledge the limitations of his contribution. Whether it corresponds to the patient's own subjective postoperative assessment or not, the objective evaluation of the surgeon must be communicated very explicitly to the patient in order for the latter to acknowledge the actual benefits of surgery. Even if there is no apparent problem, it may be necessary to see the patient more often in order to provide support through the period of time needed to forego their ideal and mourn the loss of their complaint. Based on this, the patient is likely to come to terms with whatever relief he or she has actually experienced, internalise it, and achieve a new sense of balance and confidence in his or her own life "That's all it is, but that is something already". At this critical juncture, the surgeon has to bear the temporary frustration and the lack of gratefulness expressed by the patient; this is often overlooked.

To evaluate and understand the satisfaction of the patient's that undergo total arthroplasty of the hip, it is necessary to resort to standard quality-of-life questionnaires in conjunction with open-ended interviews where spontaneous words can be recorded and analysed. An open

prospective study involving 45 patients free of psychiatric pathology who underwent surgery with the same surgeon in an effort to correct benign osteoarthritis of the hip suggests that even if his evaluation of the patient's condition is strict and properly codified, the expectations of the patient cannot be reduced to his or her apparent wishes. Proper walking, normal range of motion and relief from pain as a result of the operation do not always suffice to satisfy the patient.

Precise quality-of-life questionnaires do not take into account the patient's subjective mindset but are useful insofar as they provide a framework for discussion what is likely to foster spontaneous expressions of thought. This spontaneity is more likely to reflect the patient's subjective state of mind. Without the questionnaires, some patients are unable to express themselves with free-associations.

Functional hip surgery induces the patient to harbour unspoken expectations and affective demands that exceed the framework of the damaged and repaired hip. During the four-month period that follows the total arthroplasty, 50% of the patients experience a phase of discomfort, disillusion, or even frustration which may last for a few months and is usually overcome without additional treatment.

Prior to the operation, it is necessary to identify the intricate threads that a patient may have woven between these areas of his life that are brimming with subjective significance and the actual complaints concerning the affected hip. This may point to a neurotic appropriation of the physical problem and are likely to develop into intense and enduring feelings of dissatisfaction, should they be overlooked. It is important to let the patient know immediately that optimal surgical results will take time to materialise, 6 months at least, or maybe even a year.

References

1. Consoli S (1994) Evaluation de la qualité de vie: problèmes méthodologiques, applications au champ des pathologies organiques. In: *Qualité de vie subjective et santé mentale*. Ellipses (laboratoires Duphar Upjohn), Paris, p 129-142, Ch 11
2. Guillemin F, Mainard D (1996) La qualité de vie après chirurgie orthopédique des membres inférieurs: une nouvelle approche. *Rev Chir Orthop* 82:549-556
3. Israël L (1989) Boiter n'est pas pécher. Denoël (ed), Strasbourg p 263ff
4. Israël L (1968) *Le médecin face au malade*. Dessart et Morgada (eds), Strasbourg
5. Laupacis A, Bourne R, Rorabeck C et al. (1993) The effect of elective total hip replacement on health-related quality of life. *J Bone Joint Surg [Am]* 75:1619-1626
6. Lequesne M, Lamotte J, Samson M (1992) Les indices de qualité de vie (IQV) en rhumatologie. In: *Actualité rhumatologique présentée au praticien en 1992*. Expansion Scientifique Française, Paris
7. Lequesne M, Samson M, Bakouche S (1991) Utilisation d'une échelle visuelle analogique (EVA) pour l'auto-appréciation du handicap dans les coxopathies de l'adulte. *Rev Rhumat* 58: 694
8. Merle D'Aubigné R, Postel M (1954) Functional results of hip arthroplasty with acrylic protheses. *J Bone Surg [Am]* 36:451

9. Poiraudau S, Dougados M, Courpied JP et al. (1992) Evaluation des variations d'une échelle de qualité de vie (AIMS 2) après mise en place d'une prothèse totale de hanche. *Rev Rhumat* 59:684
10. Pouchot J, Joubert JM, Bono I (1995) Apport des instruments de mesure d'incapacité fonctionnelle et de qualité de vie dans l'arthrose. *Rev Rhum (Ed Fr)* 62 56S–63S
11. Postel M, Kerboul M, Evrard J, Courpied JP (1987) Total hip replacement. Springer, Berlin Heidelberg New York
12. Tatossian A (1994) La notion de qualité de vie subjective: évidences et illusion. In: *Qualité de vie subjective et santé mentale*. Ellipses (laboratoires Duphar Upjohn) p 57–58
13. Witvoet J (1995) Critiques des méthodes d'évaluation de la chirurgie "prothétique" de la hanche. Cahiers d'enseignement de la SOFCOT. Conférences d'enseignement pp 11 à 22. Expansion Scientifique Française, Paris
14. Wright JG, Rudicel S, Feinstein AR (1994) Ask patients what they want. Evaluation of individual complaints before total hip replacement. *J Bone Joint Surg [Br]* 76:229–234
15. Wright JG, Young N (1997) The patient-specific index: asking patients what they want. *J Bone Joint Surg [Am]* 79:974–981