Practical Aspects of Therapeutic Intervention in Rheumatoid Arthritis

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ABSTRACT. With the availability of more effective treatments for the management of rheumatoid arthritis (RA), patients look to their rheumatologist to guide their decision-making. The challenge for rheumatologists is to effectively communicate the risks and benefits related to the many options that are currently available for patients with RA. Physicians must be aware of patient preferences regarding the administration and dosing of their RA medications to help guide their treatment decisions. (J Rheumatol 2009;36 Suppl 82:39-41; doi:10.3899/jrheum.090130)

Key Indexing Terms:
RHEUMATOID ARTHRITIS PATIENT PREFERENCES
DISEASE-MODIFYING ANTIRHEUMATIC DRUGS

The landscape of care for rheumatoid arthritis (RA) has evolved in recent years. Appropriate screening and adequate monitoring for higher-risk conditions such as recurrent infection, opportunistic infection, and hepatitis B and C have improved medication safety. Rheumatologists have taken on more responsibility from primary care physicians and are becoming increasingly accountable for the management of comorbid conditions – such as cardiovascular disease, infection, osteoporosis, and malignancy – especially in areas where access to family physicians may be limited[1]. As a result, helping patients make informed decisions regarding the treatment of their disease has become an integral part of the rheumatologist's practice. This article reviews the practical aspects of therapeutic interventions for RA, in light of these evolving paradigms.

EARLY DIAGNOSIS OF RA

Timely assessment is a relatively new concept in the management of patients with RA[2,3]. In the past decade, rheumatologists have come to recognize the importance of early treatment in improving outcomes for RA patients[4]. With increased understanding that the illness experience is vastly different for patients with early-versus late-stage disease, treatment philosophies and discussions surrounding the risks and benefits of treatment have evolved to account for the differences in these populations. Maintaining tight control over disease activity[5] and treating to target[6] are newer concepts that are showing promising results. New treatment paradigms utilizing the early use of combination disease modifying antirheumatic drugs (DMARD) have greatly advanced the treatment of early RA and revolutionized outcomes[7]. In particular, data are beginning to accumulate regarding the use of new biologic therapies, which are showing promise in the early treatment of RA[8].

ROLE OF THE PATIENT

With growing awareness and education surrounding RA, largely due to the recent changes in management options, patients are assuming a greater role in therapeutic decision-making. Empowering patients results in greater concordance with treatment[9] and satisfaction with care[10], and the potential for improved outcomes[11]. As a result, patient-driven outcome measures are becoming more common in the management of RA, as discussed by George Wells in this supplement series[12].

Surveys of patients with RA suggest that they want to be fully informed about the risks associated with medications and about alternative treatment options. In a US survey of 100 patients belonging to a community rheumatology practice, the preference for full disclosure about their RA was stronger among women, employed people, and those with higher education[13]. A survey of 344 patients with RA in the United Kingdom examined the relation between patients' desire for disease information and their involvement in treatment decisions[14]. The majority of patients (80.8%) felt that they should be provided with information about their disease, whether they ask for it or not. In cases where there is more than one way to treat a problem, almost all patients (98.2%) agreed that they should be informed about all of the options. However, the majority of respondents (74.5%) also agreed that important medical decisions should be made by the physician, rather than by the patient. Another study of 649 patients with RA in a United Kingdom rheumatology clinic found that the majority (66%) preferred either to relinquish the decision-making entirely to the physician or to make a "forced/informed"

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Table 1. Patient preferences regarding anti-tumor necrosis factor (TNF) therapy among 100 patients in a United Kingdom rheumatology outpatient clinic[16]. Reprinted from Rheumatology 2006;45:1575-6, with permission.

Variables	Selecting This As First Choice (%)	
	Not On Anti-TNF	On Anti-TNF
Administration route		
Subcutaneous	52.5	41
Intramuscular	30	24
Intravenous	17.5	35
Frequency		
Twice Weekly	2.5	2.5
Weekly	9.5	4.5
Monthly	43	22
Two-monthly	45	71
Location		
At home	52	62.5
On a day ward	36	37.5
As an inpatient	12	0

choice, whereby the physician explains all of the options, and then ultimately makes the decision regarding therapy[15]. Only a third of patients expressed a desire to make treatment decisions themselves.

The desire for involvement in treatment decision-making, therefore, appears to be strikingly low compared with the desire for information. Information-seeking may not necessarily be associated with decision-making preferences. This implies that patients with RA want to be informed, but they do not necessarily want to be burdened with the final decisions regarding therapy.

With respect to patient preferences for therapy, a number of factors need to be considered, including route of administration (e.g., oral, intravenous, subcutaneous), place of administration (e.g., home or clinic/hospital), and dosing interval (e.g., once-daily, weekly, biweekly, monthly). In a survey of 100 consecutive patients with RA who attended a rheumatology outpatient clinic in the United Kingdom, patients were asked about their preferences with respect to anti-tumor necrosis factor (TNF) therapies[16]. Half the patients were currently undergoing treatment with an anti-TNF therapy, and the other half were being treated with conventional DMARD. Patients were asked to select their preferences regarding the route of administration, the frequency of administration, the treatment environment, and the individual responsible for administering therapy. When asked to rank each of these 4 variables in order of importance, route of administration was identified as the most important feature of anti-TNF therapy. For patients who were currently being treated with an anti-TNF therapy, the preference was for subcutaneous injection, followed by intramuscular, and then intravenous injection (Table 1). For patients who had not yet been treated with an anti-TNF therapy, the preference was still for subcutaneous injection, but intravenous injection was ranked second, and intramuscular injection third. These results imply that, although intravenous administration is the least preferred method of administration, patients may become accustomed to it once switched to an intravenous therapy. Not surprisingly, the majority of patients preferred to receive their treatment at home, at the longest (bimonthly) interval possible. Chilton, *et al* surveyed 649 patients with RA in a United Kingdom rheumatology clinic to explore their treatment preferences when faced with 3 options for anti-TNF therapy: etanercept, adalimumab, and infliximab[15]. Patients who were not currently undergoing treatment with an anti-TNF therapy were asked to complete a written questionnaire by mail. One-on-one interviews were conducted with those who were currently being treated with an anti-TNF inhibitor. With respect to the route of administration of RA therapy, younger patients were more confident about self-administering treatment, and preferred subcutaneous over intravenous medication[15]. Reasons for this preference included not wanting to travel to the hospital, and not wanting to rely on others for assistance. In contrast, older patients were less sure about their ability to administer medications and expressed a preference for the intravenous route, which provides the opportunity for contact with healthcare staff and reassurance that help is available if needed. It is important for rheumatologists to be aware of these differences when helping patients make treatment decisions, as physicians can potentially impose their own lifestyle preferences on patients when prescribing a route of administration.

Despite the increasing use of home infusion strategies, few published studies have compared outcomes between home and hospital infusion, and none in the treatment of RA. In a prospective randomized trial of adults requiring intravenous antibiotics, patients were randomly assigned to complete therapy at home or in the hospital[17]. Home intravenous therapy was well tolerated, less costly, and not associated with any major disadvantage to quality of life or clinical outcomes compared to hospital therapy. Nicolay, *et al* investigated the impact of weekly subcutaneous self-infusions at home on health-related quality of life, treatment satisfaction, and preferences in patients who had previously been treated with intravenous therapy at the hospital/doctor's office or at home for primary immunodeficiencies[18]. Patients reported significantly fewer limitations to their daily activities, improved vitality, and better overall health with home infusions.

In the pediatric setting, preferences for home- versus hospital-based chemotherapy have been evaluated in children with cancer. In a qualitative analysis of children switched from hospital to home chemotherapy, the majority of parents and children preferred home chemo-therapy over hospital chemotherapy[19]. Reasons for the preference included lower cost, fewer time constraints, and less disruption to work and family schedules. While some parents felt more secure with hospital

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chemotherapy, they also found it more exhausting and stressful. Home infusion strategies may therefore be a viable alternative for the treatment of both adults and children with RA.

CONCLUSIONS

With the changing treatment landscape for RA, patients want to be more informed, yet remain reluctant to be involved in the decision-making process. The challenge for rheumatologists is to effectively communicate the risks and benefits related to the many options that are currently available for patients with RA. In doing so, rheumatologists should not only consider the impact of a treatment on the disease, but also think more globally about the impact of the treatment on lifestyle, control, and comfort. With patient-driven outcomes becoming more commonplace in the management of RA, better strategies for obtaining these outcomes are needed.

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