1. Arthritis is characterized by the presence of joint swelling associated with pain or stiffness. Patients presenting with arthritis in >1 joint should be referred to and consult with a rheumatologist, ideally within 6 weeks after symptom onset.

2. Clinical examination is the preferred method for detecting synovitis. In doubtful cases, ultrasound, power Doppler, and magnetic resonance imaging may also be helpful in detecting synovitis.

3. The exclusion of diseases other than RA requires careful and complete patient history and clinical examination, and should include the following laboratory tests: complete blood count, urinalysis, transaminases, and antinuclear antibodies.

4. In patients presenting to a rheumatologist with early RA, the following factors predictive of persistent and/or erosive disease should be measured: number of swollen and tender joints, erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP), levels of rheumatoid factor, anticyclic citrullinated peptide (anti-CCP) antibodies, and radiographic erosions.

5. In patients at risk for developing persistent and/or erosive disease, disease-modifying antirheumatic drugs (DMARDs) should be initiated as early as possible even if the classification criteria for inflammatory rheumatoid disease have not yet been established.

6. It is important for patients with RA to obtain information on treatment options and outcomes. Educational programs aimed at coping with pain and disability, and maintaining the ability to work, may be used as adjunct interventions.

7. Nonsteroidal anti-inflammatory drugs (NSAIDs) should be considered in symptomatic patients after evaluation of gastrointestinal, renal, and cardiovascular adverse events.

8. Systemic corticosteroids reduce pain and swelling, and should be considered as an (mainly temporary) adjunct therapy to the DMARD strategy. Intra-articular glucocorticoid injections should be considered for relief of symptoms of local inflammation.

9. Among the DMARDs, methotrexate is considered the gold standard treatment for rheumatoid arthritis (RA). Methotrexate is effective, safe, and convenient for the long-term treatment of RA.

10. The main goal of DMARD therapy is to achieve remission. Regular monitoring of disease activity should include tender and swollen joint count, patient's and physician's global assessments, and ESR or CRP. Arthritis activity should be assessed at 1- to 3-month intervals, for as long as remission is not achieved. Structural damage should be assessed using radiographs of the hands and feet every 6 to 12 months during the first few years. Functional assessment (e.g., Health Assessment Questionnaire) can be used to complement the monitoring of disease activity and structural damage.

11. Nonpharmacologic interventions, such as dynamic exercises, occupational therapy, and hydrotherapy, can be used as adjunct treatments to pharmaceutical interventions in patients with early arthritis.

12. Monitoring of disease activity should include tender and swollen joint count, patient’s and physician’s global assessments, and ESR or CRP. Arthritis activity should be assessed at 1- to 3-month intervals, for as long as remission is not achieved. Structural damage should be assessed using radiographs of the hands and feet every 6 to 12 months during the first few years. Functional assessment (e.g., Health Assessment Questionnaire) can be used to complement the monitoring of disease activity and structural damage.

REFERENCES


TREATMENT OF EARLY RA

Recommendations suggest initiating DMARD therapy in patients with RA within 12 weeks of symptom onset. The choice of DMARD should be based on differences among medications, the patient’s comorbidities and susceptibility to infection, concomitant medications, and preferences for particular delivery systems. Table 2 summarizes the dosages, adverse events, and monitoring recommendations for traditional nonbiologic DMARDs.

TABLE 2. Comparison of Traditional Nonbiologic DMARDs

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dosage</th>
<th>Onset of Effect</th>
<th>Adverse Events</th>
<th>Monitoring Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methotrexate</td>
<td>15 to 25 mg PO, SC, daily</td>
<td>1 to 2 months</td>
<td>GI intolerance (nausea, vomiting, abdominal pain); oral ulcers; alopecia; hepatotoxicity; rare pulmonary toxicity</td>
<td>Baseline: CBC + diff, LFTs, renal function, chest x-ray; CBC, Cr, and LFTs monthly x6, then every 1 to 2 months; Adjust dose or discontinue if elevated LFTs</td>
</tr>
<tr>
<td>Leflunomide</td>
<td>20 mg PO daily</td>
<td>4 to 12 weeks</td>
<td>GI intolerance (nausea, vomiting, abdominal pain); skin rash (Stevens-Johnson syndrome and toxic epidermal necrolysis); alopecia; hepatic toxicity; leukopenia; thrombocytopenia; highly teratogenic</td>
<td>Hepatitis B and C serology in high-risk patients; CBC, Cr, and LFTs monthly x6, then every 1 to 2 months; Reduce dose or discontinue if elevated LFTs</td>
</tr>
<tr>
<td>Hydroxychloroquine</td>
<td>200 to 400 mg PO daily</td>
<td>2 to 6 months</td>
<td>GI intolerance (nausea, vomiting, abdominal pain, diarrhea); retinal toxicity (contraindication); rash; hepatitis; leukopenia; thrombocytopenia;</td>
<td>Ophthalmologic examination, including visual acuity, expert slit-lamp, funduscopic, and visual field test, at baseline and then every 3 months; Regular knee and ankle reflexes</td>
</tr>
<tr>
<td>Sulfasalazine</td>
<td>2 to 3 g PO daily</td>
<td>1 to 3 months</td>
<td>GI intolerance; oral ulcers; cytopenia; rash</td>
<td>CBC + diff, LFTs at baseline, and weekly for the first 3 months, then monthly for the next 3 months, followed by every 3 months thereafter; UA with microscopic evaluation, renal function routinely; Clinical signs of blood dyscrasias</td>
</tr>
</tbody>
</table>

DOSES, ADVERSE EVENTS, AND MONITORING RECOMMENDATIONS FOR BIOLOGIC DMARDs

Table 3 presents the dosages, adverse events, and monitoring recommendations for biologic DMARDs.

TABLE 3. Comparison of Biologic DMARDs

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dosage</th>
<th>Onset of Effect</th>
<th>Adverse Events</th>
<th>Monitoring Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adalimumab</td>
<td>40 mg SC twice weekly</td>
<td>1 to 2 months</td>
<td>Injection-site reactions; Serious bacterial infections; Tuberculosis; Demyelinating disorders; Hematologic abnormalities</td>
<td>Evaluate for infection, and for neurologic, cardiovascular, and dermatologic adverse events, at each visit; CBC and LFTs at baseline, then every 2 to 3 months; Discontinue biologics if signs of serious illness</td>
</tr>
<tr>
<td>Etanercept-infliximab</td>
<td>25 mg SC twice weekly or 50 mg SC once weekly</td>
<td>1 to 2 months</td>
<td>Injection-site reactions; Serious bacterial infections; Tuberculosis; Demyelinating disorders; Hematologic abnormalities</td>
<td>Evaluate for infection, and for other adverse events at each visit; CBC at baseline and every 3 months</td>
</tr>
<tr>
<td>Anakinra</td>
<td>100 mg/day SC (4 to 12 weeks)</td>
<td>1 to 2 months</td>
<td>Injection-site reactions; Leukopenia; Infections</td>
<td>Evaluate for infection and for other adverse events at each visit; CBC at baseline and every 3 months</td>
</tr>
<tr>
<td>Abatacept (T-cell costimulatory blocker)</td>
<td>500 to 1000 mg IV (weight-based) at 0, 2, and 4 weeks, then every 4 weeks (2 to 12 weeks)</td>
<td>1 to 2 months</td>
<td>Injection; Malignancy—lymphoma; COPD exacerbation</td>
<td>Evaluate for infection and for respiratory adverse events at each visit; CBC, blood chemistry, and LFTs at baseline and with each infusion</td>
</tr>
<tr>
<td>Rituximab (Monoclonal antibody to B-cell CD20 receptors)</td>
<td>1000 mg IV at 0 and 15 days (2 to 12 weeks)</td>
<td>1 to 2 months</td>
<td>Injection-site reactions; Infections; Viral reactivation</td>
<td>Evaluate for infection, and for neurologic and dermatologic adverse events, at each visit; CBC, blood chemistry and LFTs at baseline and at 2 weeks, then every 2 to 3 months thereafter</td>
</tr>
</tbody>
</table>

INTEGRATED CARE PATHWAY FOR PATIENTS WITH RA

In 2004, Chilton published an example of an integrated care pathway for outpatient treatment of RA, based on the British Society of Rheumatology Guidelines. Integrated care pathways are useful for improving the process of care for patients with RA. These pathways must be evidence-based and approved by appropriate medical committees (see Figure 1).