Rheumatoid Arthritis Medications: Literature Review

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There is no cure treatment available for rheumatoid arthritis patients; however, managing it becomes a more realistic and achievable goal with using medications. According to Hinkle & Cheever (2018), patients should start treatment with either a nonbiologic or biologic DMARD to help slow the disease progression when patients are diagnosed with rheumatoid arthritis. The medications used for rheumatoid arthritis are essential for the remission of the disease, reducing joint pain and swelling, decreasing joint deformity chances, and minimizing disability. There are many medications that patients can use to manage rheumatoid arthritis. However, one medication might be effective for one patient but not for another patient. Therefore, nurses should be aware of different medications for rheumatoid arthritis. The purpose of this literature review is to have a better understanding of existing research about the effectiveness and different medications for rheumatoid arthritis.

Etanercept or Methotrexate Withdrawal in Rheumatoid Arthritis Patients in Sustained Remission

Curtis et al. (2021) conducted a study to investigate whether remission rheumatoid arthritis patients who use combination therapy can switch to single therapy due to some concern of long-term use of combination therapy. According to the article, patients who achieved remission of rheumatoid arthritis with combination therapy are concerned about continuing combination therapy due to medication burden, adverse effects, and tolerability concern of long-term use of some medication (Curtis et al., 2021). Therefore, it would be beneficial for the patient and physician to know how to decrease combination therapy while still maintaining rheumatoid arthritis under control. The author conducted the study by doing a 24-week open lab

run period of continuing combination therapy for patients in remission with their rheumatoid arthritis. Those who maintained their remission went to a 48-week randomized controlled, double-blind trial. There are 253 participants for the study. The researchers divided the participants into three groups for the 48-week trial given three different sets of medications. The article's primary purpose is to examine whether remission of rheumatoid arthritis attained with combination therapy of etanercept and methotrexate can continue using only one medication, either etanercept or methotrexate.

Key Points

Etanercept or methotrexate withdrawal after combination therapy can be considered a simplified treatment in sustaining rheumatoid arthritis remission. Curtis et al. (2021) stated that previous studies of the two medications did not examine monotherapies' strategies. Previous studies also have some limitations due to inconsistent definitions of remission and lack of initial observation of remission before the studies of withdrawal of either medication start. The study results show that 49.5 % of the etanercept group maintain remission after a 48-week study trial. On the other hand, only 20.7% methotrexate monotherapy group maintain remission after a 48-week study trial. The combination therapy group result showed that 52.9% maintained remission. The result shows that etanercept monotherapy had better effectiveness than methotrexate. In addition, combination therapy result is more successful than methotrexate (Curtis et al., 2021). The numerical data results are the vital part of the article since this data only show facts and figures in concluding without making any biased idea.

Assumptions

The authors' primary assumption is that this study can help guide decision-making strategies in considering one medication use after combination therapy with a well-controlled rheumatoid arthritis patient, which can ease some of the concerns of the patient and even physician. The authors state that study results provide information about the probability of ceasing methotrexate after attaining a combination therapy goal. The study result shows that etanercept effectiveness is above methotrexate. The idea may interest physicians and patients about discontinuing methotrexate due to concern about adverse effects and consequences of long-term use of it (Curtis et al., 2021).

Deficit/Conclusion

This nursing student accepts the author's line of reasoning because doing a study trial would help look for other treatment options that are simple and less. Curtis et al. (2021) state that a few studies have done on the management of remission using a single medication after combination therapy. Older adult patients have some complex medication regimens that can affect their physical health and tolerability with medication. Minimizing medication use while slowing down the rheumatoid arthritis disease process would help patients reduce their medication burden. The article can change nursing practice because it gives more information about monotherapy, eliminating combination therapy used by rheumatoid arthritis patients in remission. Suppose nursing fails to accept the author's reasoning about monotherapy used for remission rheumatoid arthritis, treatment option studies may minimize. Recognition of a potentially simple and less medication use regimen may go unnoticed.

Efficacy and Safety of Upadacitinib Monotherapy in Methotrexate-Naive Patients With Moderately-to-Severely Active Rheumatoid Arthritis (SELECT-EARLY): A Multicenter, Multi-Country, Randomized, Double-Blind, Active Comparator-Controlled Trial

Van Vollenhoven et al. (2020) conducted a study to investigate whether upadacitinib, a Janus kinase 1-selective inhibitor, is effective and safe to use as therapy for patients with moderately to severely active rheumatoid arthritis who have no or limited exposure to methotrexate. According to the article, methotrexate is the most commonly recognized initial therapy for rheumatoid arthritis. However, it is not always the ideal therapy choice for all rheumatoid arthritis patients (Van Vollenhoven et al., 2020). Therefore, it would be valuable to find other alternative therapy that would fit the patient's needs. The author conducted the study by doing a 24- weeks randomized, double-blind study to study the effect of upadacitinib as monotherapy for rheumatoid arthritis patients. The researcher evaluates the effectiveness of therapy during weeks 12 and 24. There are 947 participants for the study. The researcher divides the participant into three groups that will receive either 15 mg or 30 mg once daily of upadacitinib or a weekly dose of methotrexate for rheumatoid arthritis therapy. The article's primary purpose is to examine whether upadacitinib will be more effective than methotrexate as a therapy medication for rheumatoid arthritis.

Key Points

The takeaway from this study is to show that upadacitinib can be a therapy of choice to help reduce the potentially irreversible impact of rheumatoid arthritis. Van Vollenhoven et al. (2020) stated that the previous studies of upadacitinib had met all criteria in all pivotal phase III trials for rheumatoid arthritis monotherapy or combination therapy. The study result shows that on

week 12, 52% and 58% of the groups who receive once daily 15 mg and 30 mg upadacitinib respectively have met the American College of Rheumatology improvement criteria. On the other hand, only 28% of the group who receive weekly methotrexate met the improvement criteria.

On week 24, the result shows that 48% and 50% of the groups who receive once daily 15 mg and 30 mg of upadacitinib have lower disease activity scores based on a C-reactive protein level of less than 2.6. On the other hand, only 19% of the group who receive weekly methotrexate have met the lower disease activity score. The result shows that both doses of upadacitinib had better effectiveness than methotrexate. In addition, 88 to 89% of patients receiving upadacitinib show no disease progression in radiograph imaging (Van Vollenhoven et al., 2020). The numerical data result comparing the two medications is vital since this data shows how the percentage affects the study's outcome.

Assumptions

The authors' primary assumption is that this study can help find beneficial alternative therapy for rheumatoid arthritis aside from methotrexate, which is the gold standard initial therapy of rheumatoid arthritis. Van Vollenhoven et al. (2020) state that the study result provides information about upadacitinib becoming a new therapy option for rheumatoid arthritis patients since methotrexate is not always effective and ideal for all patients. The study result shows that there is a clinical and radiographic improvement in patients who take the medication. The comparison between upadacitinib and methotrexate show an idea that upadacitinib can be effective in slowing down the disease progression of rheumatoid arthritis (Van Vollenhoven et al., 2020)

Deficit/Conclusion

This nursing student accepts the author's line of reasoning because it is essential to find alternative therapies for managing rheumatoid arthritis since there is no cure for it. It is best to find different alternative therapies since one therapy might work for some patients but will not work for other patients. Van Vollenhoven et al. (2020) states that there is still some limitation with methotrexate even if it is the most widely used treatment management for rheumatoid. The effectiveness of medication will vary for all patients. It is best to find a medication that will help the patient manage their disease. The article can change nursing practice because it gives more information about another alternative therapy for rheumatoid arthritis. It can be a unique medication option for the unique of different patients. It may take away the opportunity for patients to explore alternative therapy for managing rheumatoid arthritis if nurses fail to accept the authors' reasoning about using upadacitinib as an alternative therapy for rheumatoid arthritis.

Baricitinib versus Placebo or Adalimumab in Rheumatoid Arthritis

Taylor et al. (2017) conducted a study to investigate whether baricitinib, a reversible Janus kinase 1 and 2 inhibitors, have therapeutic benefits in rheumatoid arthritis patients and use as an alternative in those who have an inadequate response to methotrexate. According to the article, the use of conventional synthetic disease-modifying antirheumatic drugs such as methotrexate and biologic DMARDs helps patients achieve clinical remission for rheumatoid arthritis. However, baricitinib also show clinical effectiveness in some studies with rheumatoid arthritis patient (Taylor et al., 2020). It will be helpful to find more information about how baricitinib affects rheumatoid arthritis patients overall. The author conducted the study by doing a randomized, double-blind, placebo study to investigate baricitinib effectiveness, safety, change

in rheumatoid arthritis disease activity, patient outcome, and its side effects. The research evaluates baricitinib by comparing it to placebo and adalimumab during the week 12 and 24. There are 1307 participants for the study. The research divides the participant into three groups that will receive either a placebo, 4 mg once daily of baricitinib, or a 40 mg subcutaneous adalimumab every other week. The article's primary purpose is to examine whether baricitinib has a therapeutic effect by comparing it to a placebo or adalimumab.

Key Points

The key point from this study is to show that baricitinib can be a practical and therapy choice for rheumatoid arthritis. Taylor et al. (2017) stated that baricitinib might have some therapeutic effect for rheumatoid arthritis compared with adalimumab and placebo used in the study. The study result shows that on week 12, 70% of the group who receive baricitinib have met the improvement criteria of the American College of Rheumatology. On the other hand, the placebo and adalimumab groups show that 40% and 61 % have met the improvement criteria of the American College of Rheumatology.

On week 24, the result shows that 5% of baricitinib and placebo groups had severe adverse reactions. The adalimumab group only had 2% of participants that had a severe adverse reaction. On the other hand, the baricitinib group shows no progression of joint damage in radiographic imaging. Baricitinib shows some significant clinical effectiveness in improving and managing rheumatoid arthritis even though some participants experienced side effects (Taylor et al., 2017). The numerical data of effectiveness and side effect are vital since it shows measured generalize data on how the medication will affect rheumatoid arthritis patients.

Assumptions

The author's primary assumption is that patients who had an ineffective response to methotrexate can use baricitinib as an alternative option. Taylor et al. (2017) state that the study result provides information that baricitinib shows clinical and radiographic improvement in those who take the medication than those who take adalimumab and placebo. The authors also state that since there was a reduction in neutrophil count and increase creatine level, side effects in baricitinib use happens. However, despite this, authors assume that using once-daily baricitinib show improvement in sign and symptoms, physical function and progression of rheumatoid arthritis due to the study result (Taylor et al., 2017).

Deficit/Conclusion

This nursing student accepts the author's line of reasoning because it is essential to study more about the effect of a medication in the disease activity, the physical function of the patient, and side effects. However, using a placebo as a study group can affect the result of the study. There is no real therapeutic value to compare with baricitinib. Taylor et al. (2017) state that the study has limitations since the effectiveness of baricitinib was not fully assess with other conventional synthetic DMARDs that are the current initial treatment use. The article can change nursing practice because it gives more information about using baricitinib as a management medication for rheumatoid arthritis. Suppose nursing fails to accept the author's reasoning about using baricitinib as a management medication for a rheumatoid arthritis treatment option, further studies and use of this medication may diminish. Recognition of other benefits of this medication may go unnoticed.

Conclusion

Even though there is no cure for rheumatoid arthritis, there are many medications that patients can use to manage and slow the progression of rheumatoid arthritis. In this literature review, etanercept, upadacitinib, and baricitinib are some alternative medications for rheumatoid arthritis. The first article talks about how etanercept had better effectiveness than methotrexate. It is a possible medication for monotherapy of maintaining rheumatoid arthritis after a combination therapy (Curtis et al., 2021). The second article talks about how upadacitinib is effective in those with limited or no exposure to methotrexate. It is a possible alternative medication for managing rheumatoid arthritis (Van Vollenhoven et al., 2020). Lastly, the third article talks about baricitinib therapeutic effectiveness in rheumatoid arthritis and its side effect (Taylor et al., 2017). One medication might be effective for one patient but not for another patient, so it is valuable to know other medication.

The provided information can improve patient outcomes because finding other medication options for rheumatoid arthritis can help the patients maintain their functional status, safety, and satisfaction. The information can improve nursing practice because knowing that there is another available medication option, nurses can educate the patient about the possible treatment to help with their needs. Patient education is an essential part of nursing practice, especially in rheumatoid arthritis patients, because it allows the patient to take medications accurately and safely (Hinkle & Cheever, 2018). The information helps improve evidence-based practice because it helps develop new knowledge and acquire the best clinical evidence about rheumatoid arthritis medication. Lastly, the information can improve healthcare because it provides crucial knowledge about handling and making a plan for the care of rheumatoid arthritis patients.

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