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Study of Frequent Drug Interactions among Anti- Rheumatoid Drugs in a Tertiary Care Set-Up

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ABSTRACT: This research paper gives an insight of how prevalent the rheumatoid arthritis cases are among other disease conditions and which age groups are more affected by the same. 90 cases were studied using prescription analysis and the drugs prescribed for such active rheumatoid arthritis patients evidently show a number of interactions which is to be necessarily prevented and this paper critically analyses the need of it.
KEYWORDS: Rheumatoid arthritis, prevalence, polypharmacy, drug interactions.

I. INTRODUCTION

In this paper, the study is proceeded with the analysis of drug usage pattern in a tertiary care set-up in a retrospective manner where the major drug interactions are associated with multiple prescription for numerous co-morbid conditions. [1]The Rheumatoid Arthritis causes inflammation, pain and swelling in the joints and may cause irreversible destruction leading to increased morbidity and mortality rates. [2]The etiology of RA is due to genetic and environmental factors, more prone in females over 60 years of age, tobacco smoking, etc. The treatment includes prescription of NSAIDs, DMARDs, corticosteroids based on the disease severity. [3]The RA can be very problematic if leading to comorbidities involving cardiovascular, pulmonary, psychiatric disorders, infections or malignancies in the later stages. [4]Drug related problems with RA are very common in polypharmacy as well as in elderly patients with multiple ailments. This leads to more adverse effects than good efficacy of treatment outcomes. [5,6]Studies show thatDisease-modifying antirheumatic drugs (DMARDs) can reduce the risk of developing lymphoma that can be associated with RA.

II. STUDY PATTERN

The study was done with cross sectional retrospective pattern taking into consideration 90 active Rheumatoid Arthritis cases in a multi-speciality Mount Zion medical college hospital in Adoor, Kerala. The patients included were of all ages and sexes of native areas.

III. STUDY PROCEDURES

The collection of case files from the hospital was done and using Electronic Data monitoring of Micromedex, the prescriptions were evaluated for drug- drug interactions and the study report was generated.

IV. OBSERVATIONS FROM THE PRESCRIPTION PATTERN

DEMOGRAPHIC CHARACTERISTICS

A total of 90 patients were enrolled in the current study who were admitted actively as In – patients in the orthopaedic and general medicine departments. As shown in the figure, a majority of patients were in the age groups 60-69 years where the total age ranges were from 34 to 69 years.
(n=90)

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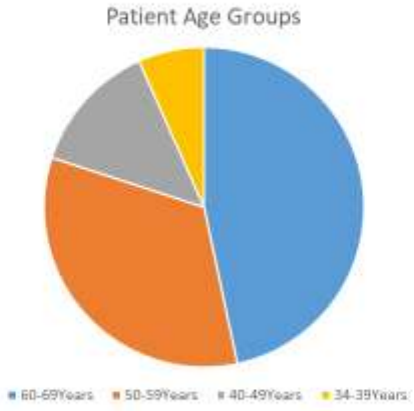
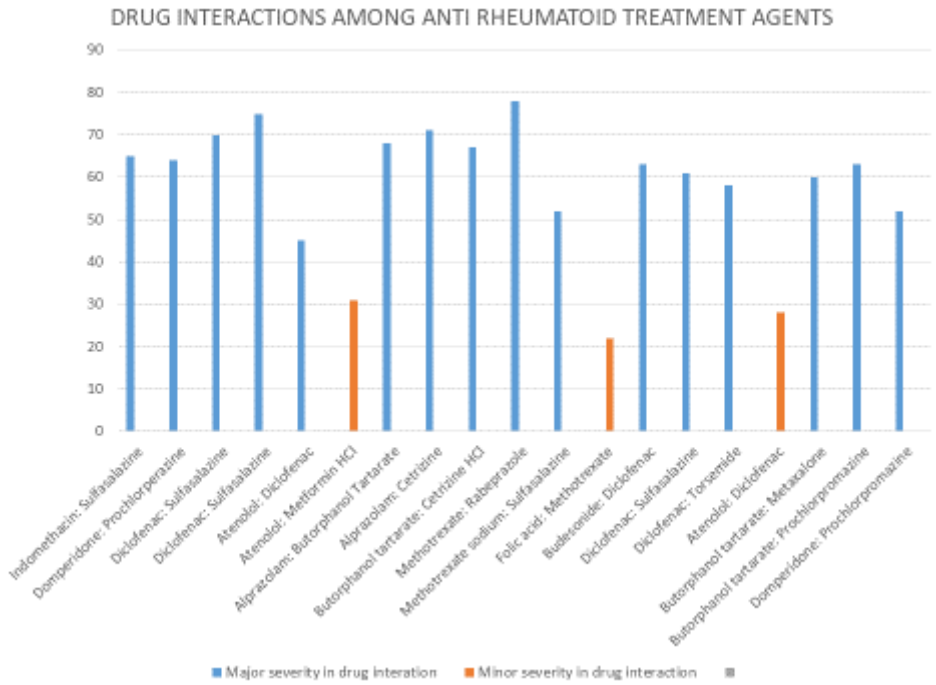


CLINICAL CHARACTERISTICS

The table below shows the extent of drug interactions due to anti- rheumatoid drug usage. The maximum number of interactions among the 90 prescriptions were with Methotrexate and Rabeprazole co-administration (about 78%)with major severity and the least number with folic acid and methotrexate administrations (about 22%) moderate severity[7].



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CONCLUSION

Our study paper showed Methotrexate to be most commonly used anti-rheumatic drug along with other co-therapeutic agents being the major causes of drug related problems. This analysis shows a warning sign of how different drugs should be prescribed with therapeutic time management for administrations and dose adjustments for lowering morbidity and mortality among Rheumatoid Arthritis patients. Therefore this is an important analysis for enhancing prevention of drug related problems in the disease management criteria.

REFERENCES:

[1]. Fleischmann R, Kremer J, Cush J, et al. Placebo-controlled trial of tofacitinib monotherapy in rheumatoid arthritis. N Engl J Med. 2012;367(6):495–507.
[2]. Cojocaru M, Im C, Silosi I, Vrabie CD, Tanasescu R. Extra-articular manifestations in rheumatoid arthritis. Mædica. 2010;5(4):286–291.
[3]. Burmester GR, Pope JE. Novel treatment strategies in rheumatoid arthritis. Lancet. 2017;389(10086):2338–2348.
[4]. Ernst ME, Iyer SS, Doucette WR. Drug-related problems and quality of life in arthritis and low back pain sufferers. Value Health. 2003;6(1):51–58.
[5]. Moreland LW, O'Dell JR, Paulus HE, Curtis JR, Bathon JM, St.Clair EW, et al. A randomized comparative effectiveness study of oral triple therapy versus etanercept plus methotrexate in early aggressive rheumatoid arthritis: the Treatment of Early Aggressive Rheumatoid Arthritis Trial. Arthritis Rheum 2012;64:2824–35.
[6]. Smolen JS, Landewé R, Breedveld FC, Dougados M, Emery P, Gaujoux-Viala C, et al. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs. Ann Rheum Dis. 2010 Jun;69((6)):964–75.
[7]. Escott-Stump S. Nutrition and Diagnosis-Related Care. Philadelphia: Lippincott Williams & Wilkins; 2011.