COPD Literature Review

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 Chronic Obstructive Pulmonary Disease is a serious condition which is the primary mortality cause of death worldwide. According a recent study it is said that this disease is the 4th leading factor in causing various deaths around the world in the overall course. the disease are further accompanied with various signs and symptoms which are quite complicated and further increases the complexity of the condition. These symptoms have a negative effect on the overall quality of life. It is a fact that the amount of data regarding the efficiency and effectiveness of antibiotics in patients who have acute exacerbation COPD are very rare. So in this study, it was hypothesized that the antibiotics fluoroquinolones are an effective treatment that is used to treat COPD. Although in other previous studies it was proved that these antibiotics are not effective but in this study it was hypothesized that these antibiotics are an effective treatment for the disease.

 FADOI\_FLOR is a controlled and well established clinical trial which is used to compare between the two antibiotics levofloxacin and prulifloxacin in the individuals who have COPD. All the patients were admitted according to their previous medication history with drugs like macrolideexluding fluoroquinolones, the assessment was done for three days with continuous or worsening of the signs and also the subsequent hospital admission. The age of all the patients was either 60 or less; the chest x-ray was also negative for any inflammation, and also all the patients were informed before conducting the study. The primary endpoint of this entire study was the number of patients who were treated successfully with these antibiotics. Another main objective of the study was to find out the total percentage of therapeutic success like the complete disappearance of symptoms and also the safety of the treatment and survival. The planned time for the administration of the antibiotics for each patient was ten days, in case if the symptoms disappeared before that then early intervention was planned. A total of 258 patients took part in this research, of these patients 128 were treated with levofloxacin and 130 with prulifloxacin. At the end of the experiment when the results were compared then the symptoms of COPD in most of the patients disappeared which showed the effectiveness of the treatment by using these antibiotics. But in this group, the patients who were treated with prulifloxacin showed a slightly higher success rate than levofloxacin. The one limitation of this research was at baseline very few patients had valid microbiological results, but it is also true that the causative agents of COPD are very rarely identified. In this study, it is proved that Prulifloxacin is quite efficient in treating the exacerbation of COPD than levofloxacin and it may be a therapeutic solution in this condition. Although the findings are quite impressive, it is still unknown that what is the mode of the mechanism of these antibiotics and how they affect the patient's body in treating against COPD (Giusti et al., 2016)

 In another study by Bourbeau et al., (2016), a study was conducted to check the feasibility of a new action plan including for the treatment of AECOPD with a combination of Salmeterol and Fluticasone Propionate and also their ability to avoid the requirements of prednisone and also its safety. The use of combination inhaler as a maintenance therapy was also assessed. Patients who were 40 years or younger and who never didn’t have excessive smoking history were included in this study. Users were excluded if they had asthma or allergic rhinitis also women who had children were excluded from this study. While recruiting, all the rescue medications were replaced by the drug Salbutamol. All the individuals were given with a maintenance dose of the combination of both antibiotics. patients were also given a session on the management of COPD. During monitoring, it was observed in the patients that those patients who were given higher doses of the drugs than those who were given lower doses were noticed to get better from the disease. Although this study showed that for the treatment of the disease high doses of the drugs are required, but prednisone was not required in the 755 of the patients. These results apply to COPD patients of all ages with moderate to severe COPD. This study is the first study to show that doubling the dose of combination therapy for early treatment of COPD can prevent the use of corticosteroids for the treatment of the disease. The main strength of this study is it is heterogeneous that means that men and women of all ages and with different severity level are part of this study and the combination therapy was equally effective in all of them which shows that if these drugs are administered at the correct dose in combination then they can offer effective treatment for COPD. However, in this study, there was no control group due to which it is not possible to estimate the real effectiveness of the drugs and also the alleviation of the disease.

**References**

Bourbeau, J., Sedeno, M. F., Metz, K., Li, P. Z., & Pinto, L. (2016). Early COPD exacerbation treatment with a combination of ICS and LABA for patients presenting with mild-to-moderate worsening of dyspnea. *COPD: Journal of Chronic Obstructive Pulmonary Disease*, *13*(4), 439–447.

Giusti, M., Blasi, F., Iori, I., Mazzone, A., Sgambato, F., Politi, C., … Gussoni, G. (2016). Prulifloxacin vs. Levofloxacin for exacerbation of COPD after the failure of other antibiotics. *COPD: Journal of Chronic Obstructive Pulmonary Disease*, *13*(5), 555–560.