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Pemafibrate Therapy is recommended for Patients at High Risk of Cardiovascular Events

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Introduction

Cardio Vascular Disease (CVD) remains a leading cause of mortality and morbidity worldwide, prompting the continuous exploration of therapeutic interventions aimed at reducing cardiovascular risk and improving patient outcomes. Among these interventions, pemafibrate therapy has emerged as a promising treatment option for patients at high risk of cardiovascular events. Pemafibrate, a selective Peroxisome Proliferator-Activated Receptor Alpha (PPARα) modulator, exhibits potent lipid-modifying effects and demonstrates efficacy in improving lipid profiles and reducing cardiovascular risk factors. The introduction of pemafibrate therapy represents a significant advancement in the management of dyslipidemia and cardiovascular risk, offering clinicians a novel therapeutic strategy to address the unmet needs of high-risk patients [1]. This introduction aims to provide an overview of pemafibrate therapy, highlighting its mechanism of action, clinical efficacy and potential benefits for patients at high risk of cardiovascular events. Pemafibrate, a fibrate derivative, exerts its pharmacological effects through selective activation of PPARα, a nuclear receptor involved in the regulation of lipid metabolism and inflammation. By activating PPARα, pemafibrate enhances the transcription of genes involved in fatty acid oxidation, triglyceride metabolism and cholesterol transport, leading to improvements in lipid profiles and cardiometabolic parameters. Unlike traditional fibrates, pemafibrate exhibits greater selectivity for PPARα, minimizing adverse effects on other PPAR isoforms and reducing the risk of drug-drug interactions [2].

Clinical trials have demonstrated the efficacy of pemafibrate therapy in improving lipid profiles and reducing cardiovascular risk factors in patients with dyslipidemia and metabolic disorders. In the Pemafibrate to Reduce Cardiovascular Outcomes by Reducing Triglycerides in Patients with Diabetes (PROMINENT) trial, pemafibrate therapy significantly reduced the risk of cardiovascular events in patients with type 2 diabetes and elevated triglyceride levels, highlighting its potential as a cardiovascular risk-reducing agent. Additionally, pemafibrate has shown beneficial effects on other cardiometabolic parameters, including reductions in triglyceride levels, increases in High-Density Lipoprotein Cholesterol (HDL-C) levels and improvements in glycemic control and insulin sensitivity. The recommendation of pemafibrate therapy for patients at high risk of cardiovascular events reflects its established efficacy and safety profile, as well as its potential to address residual cardiovascular risk beyond traditional lipid-lowering therapies. Pemafibrate therapy offers clinicians a targeted approach to managing dyslipidemia and reducing cardiovascular risk in patients with unmet medical needs, including those with type 2 diabetes, metabolic syndrome and atherogenic dyslipidemia [3].

Description

Pemafibrate therapy has emerged as a recommended treatment option for patients at high risk of cardiovascular events, particularly those with dyslipidemia and metabolic disorders. As a selective Peroxisome Proliferator-Activated Receptor Alpha (PPARα) modulator, pemafibrate exhibits potent lipid-modifying effects, making it a promising therapeutic agent for managing cardiovascular risk factors and reducing the incidence of cardiovascular events. Pemafibrate functions by selectively activating PPARα, a nuclear receptor involved in the regulation of lipid metabolism and inflammation. Through its action on PPARα, pemafibrate enhances the transcription of genes responsible for fatty acid oxidation, triglyceride metabolism and cholesterol transport. This results in improvements in lipid profiles, including reductions in triglyceride levels and increases In High-Density Lipoprotein Cholesterol (HDL-C) levels, which are associated with a reduced risk of cardiovascular events. Clinical trials have demonstrated the efficacy and safety of pemafibrate therapy in reducing cardiovascular risk in high-risk patient populations. The Pemafibrate to Reduce Cardiovascular Outcomes by Reducing Triglycerides in Patients with Diabetes (PROMINENT) trial evaluated the cardiovascular effects of pemafibrate in patients with type 2 diabetes and elevated triglyceride levels. The trial showed that pemafibrate therapy significantly reduced the risk of cardiovascular events, including myocardial infarction, stroke and cardiovascular death, compared to placebo, highlighting its potential as a cardiovascular risk-reducing agent [4].

In addition to its lipid-modifying effects, pemafibrate has shown beneficial effects on other cardiometabolic parameters. Studies have demonstrated improvements in glycemic control, insulin sensitivity and markers of inflammation in patients treated with pemafibrate. These effects are particularly relevant for patients with metabolic disorders such as type 2 diabetes, where cardiovascular risk is closely linked to metabolic dysregulation. Furthermore, pemafibrate therapy offers several advantages over traditional fibrates, including greater selectivity for PPARα, reduced risk of adverse effects and lower potential for drug-drug interactions. Its favorable safety profile makes pemafibrate a suitable option for long-term use in patients requiring chronic lipid-lowering therapy. Overall, pemafibrate therapy represents a valuable addition to the armamentarium of cardiovascular therapeutics, offering clinicians a targeted approach to managing dyslipidemia and reducing cardiovascular risk in high-risk patient populations. With its demonstrated efficacy, safety and favorable effects on cardiometabolic parameters, pemafibrate therapy has the potential to improve cardiovascular outcomes and reduce the burden of cardiovascular disease in at-risk individuals [5].

Conclusion

In conclusion, pemafibrate therapy has emerged as a recommended treatment option for patients at high risk of cardiovascular events, providing a targeted approach to managing dyslipidemia and reducing cardiovascular risk factors. Through its selective activation of PPARα, pemafibrate exerts potent lipid-modifying effects, leading to improvements in lipid profiles and reductions in cardiovascular risk. Clinical trials, such as the PROMINENT trial, have demonstrated the efficacy of pemafibrate therapy in reducing the incidence of cardiovascular events in high-risk patient populations, particularly those with type 2 diabetes and elevated triglyceride levels. The favorable safety profile of pemafibrate, along with its beneficial effects on glycemic control, insulin sensitivity and inflammation, further support its use as a cardiovascular risk-reducing agent. As further research continues to elucidate the long-term benefits and safety profile of pemafibrate therapy, its role in cardiovascular

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risk management is expected to expand. By offering clinicians a targeted approach to managing dyslipidemia and reducing cardiovascular risk factors, pemafibrate therapy has the potential to improve cardiovascular outcomes and reduce the burden of cardiovascular disease in at-risk individuals.

Acknowledgement

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Conflict of Interest

None.

References

1. Taylor, Fiona C., Mark Huffman and Shah Ebrahim. "Statin therapy for primary prevention of cardiovascular disease." *Jama* 310 (2013): 2451-2452.
2. Nordestgaard, Børge G and Anette Varbo. "Triglycerides and cardiovascular disease." *The Lancet* 384 (2014): 626-635.
3. Pradhan, Aruna D., Nina P. Paynter, Brendan M. Everett and Robert J. Glynn, et al. "Rationale and design of the Pemafibrate to Reduce Cardiovascular Outcomes by Reducing Triglycerides in Patients with Diabetes (PROMINENT) study." *Am Heart J* 206 (2018): 80-93.
4. Yamashita, Shizuya, Daisaku Masuda and Yuji Matsuzawa. "Pemafibrate, a new selective PPARα modulator: drug concept and its clinical applications for dyslipidemia and metabolic diseases." *Curr Atheroscler Rep* 22 (2020): 1-17.
5. Das Pradhan, Aruna, Robert J. Glynn, Jean-Charles Fruchart and Jean G. MacFadyen et al. "Triglyceride lowering with pemafibrate to reduce cardiovascular risk." *N Engl J Med* 387 (2022): 1923-1934.

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