A Review on Antiplatelet Drugs and Anticoagulants

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Abstract

Antiplatelet Drugs and Anticoagulants drugs help prevent dangerous blood clots from forming. These are used to control the risk of heart attack or stroke, in these cases they want to use by doctors prescription. These are very harmful to the body, so that people can change the lifestyle when they have to maintain good health to control it.

How does it work?

Antiplatelet drugs are intended to prevent and/or reverse platelet aggregation in arterial thrombosis, most prominently in myocardial infarction and ischaemic stroke.

Anti-platelets, such as Acetylsalicylic acid or Aspirin (ASA), act on platelets in the blood, assemble it less sticky so that the platelets are not possible to produce clots that block arteries and may cause heart attacks or strokes [10]. Dual antiplatelet therapy (DAPT) consisting of aspirin and a thienopyridine was used to mitigate any negative consequences including stent thrombosis and recurrent cardiovascular events [11].

Type of Antiplatelet Drugs

1. Heparin
2. Coumadin

Types of Anticoagulant and Antiplatelet Drugs

1. Clopidogrel: Clopidogrel (clopidogrel bisulfate, Plavix) is an antiplatelet drug that is effective in reduce the strokes and heart attacks and is often prescribed to patients who receive a coronary stent. Clopidogrel is a pro-drug that requires hepatic biotransformation [6].

Keywords

Antiplatelet Drugs; Anticoagulants; Blood clot; Stroke; Heart attack
contrast, Antiplatelets are not generally suitable for using to treat the venous clots and are these most effective for preventing artery clots. When damage occurred Platelets are join together in the blood, such as cuts, bruises or internal injuries occurs. Sometimes Platelets also combine too rapidly when the arteries are inflamed, causing a block in an artery wall. Antiplatelet drugs such as aspirin, prevent the platelets from forming and are usually these prescribed when clots are artery-based.

Antiplatelets target the production of thromboxane, these are secreted by platelets that causes blood clotting. Anticoagulants attack only clotting factors. These are any other agents that contribute to blood clots. Anticoagulants are generally stronger and more aggressive than Antiplatelets [12].

Advantages

- The advantages and limitations of various antiplatelet agents that have been approved by the US Food and Drug Administration (FDA) or under development [13].
- The advantages are that they no longer require blood tests to monitor their effectiveness
- The greatest advantage of these drugs is that they prevent blood clots and also the serious complications. Aspirin specially is a lifesaver. Reduce the risk of a transient ischemic attack (TIA), stroke, and heart attack.
- a short course of anticoagulation is good enough. Typically, the longer a person is on blood thinners, the less their chance of having another clot, but this must be weighed against the increase chance for bleeding. After a second clot, though, sometimes lifelong is better.
- Anticoagulants carry a risk of bleeding. Usually there is a very good reason for taking anticoagulants in pregnancy.
- Anticoagulant medication is not used to treat rheumatoid arthritis.

Disadvantages

- Typically the drugs will cause harm issues, headaches, dizziness, pain, discomfort, gastritis, ulceration, and bleeding [14,15]
- ASA can irritate your stomach and in some cases can cause bleeding. ASA should never be given to children because it has been linked to Reye's syndrome, a rare brain and liver disorder.
- Coumadin can cause the risk for bleeding, pregnant, or breastfeeding. Because anti-platelets interfere with the clotting action of the blood, they can increase the risk of uncontrolled bleeding. Anti-platelets should not be taken by individuals who have an ulcer or history of bleeding problems. Abnormal bruising may be a symptom of a bleeding problem. Anti-platelet medications can irritate the stomach, promote the development of ulcers, and increase water and salt retention.
- It is high cost & safety concerns
- Enteric coated or buffered tablets have not been shown to reduce the likelihood of major gastrointestinal adverse effects.
- Increased risk of bleeding in surgical procedures due to impaired primary hemostasis.
- Decrease the Platelet's life span

Conclusion

The present observations on Anticoagulants and antiplatelet agents are partially useful and cause so many side effects in the body. So the people will change the everyday lifestyle. Eating a healthy diet that’s lower in fat, particularly saturated and trans fats, being smoke free, limiting alcohol use, being physically active and reducing stress also are vital in lowering the chance of heart condition. Visit your health-care practitioner concerning however you’ll be able to come through these life style changes. Hence these should be used under proper guidance of the physician. This will reduce the side effects of these birth control drugs. The routine transfusion of platelets in TBI patients on preinjury antiplatelet therapy [16]

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