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Impact of Aspirin for Cardiovascular Diseases

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DESCRIPTION

The antithrombotic effect of aspirin and its protective effect against Myocardial Infarction (MI) has been reported by a physician. Aspirin has been recommended as the primary preventive therapy for MI and stroke since that time. However, aspirin has the side effect of causing bleeding, and much research has been done to weigh the benefits and risks of aspirin therapy.

Adults aged 50-59 years with a 10-year Cardio Vascular Diseases (CVD) risk of 10% or higher were advised to take low-dose aspirin for at least 10 years, while aspirin therapy for adults aged 60-69 years was at the discretion of the clinician. Aspirin was not recommended for adults under the age of 50 or over the age of 70. Several Randomised Controlled Trials (RCTs) and meta-analyses have been used to develop aspirin therapy guidelines. Some RCTs excluded participants who take aspirin in the real world, such as the elderly, those with a history of Gastro-Intestinal (GI) disease, and those receiving other toxic agents. As a result, the role of such RCTs was weakened because strong evidence in real-world clinical practice was not taken into account. As a result, using electronic health records, we assessed the balance between the benefit and bleeding risk of low-dose aspirin in adults who underwent health screening for primary prevention in the real world. Despite the widespread use of aspirin for CVD prevention, all major heart and health organisations have issued guidelines on the use of aspirin in CVD prevention, including the American Heart Association (AHA), American Stroke Association (ASA), American College of Chest Physicians (ACCP), and European Society for Cardiology (ESC). Based on the risk profile, aspirin is generally recommended for the primary prevention of CVD. For a long time, aspirin use for primary cardiovascular prevention has been studied, with conflicting recommendations.

After a severe CVD event, secondary prevention is required due to the high risk of a repeat event. However, because initial CVD events can be fatal or disabling, primary prevention is an important consideration. Patients who have had one or more CVD events, such as a

Myocardial Infarction (MI) or an ischemic stroke, are at an extremely high risk of having another CVD event. Although rescue procedures, such as Percutaneous Coronary Intervention (PCI), are designed to stabilise acute events, aspirin therapy can actually help to prevent subsequent CVD events. Meta-analysis has shown that the benefits of low-dose aspirin for primary CVD prevention are modest and may be offset by the risk of major bleeding. It is well known that aspirin use is linked to intracranial and gastro-intestinal bleeding complications. Individuals over the age of 70 are at a higher risk of bleeding.

The use of aspirin in CVD prevention includes the use of aspirin in diabetic patients. Individuals with diabetes have a nearly fourfold increased risk of severe cardiovascular events due to increased coronary thrombus formation, increased platelet reactivity, and worsening endothelial dysfunction. Blood pressure, hypertension, obesity, and diabetes mellitus have all been identified as major risk factors for cardiovascular disease. Aspirin should not be prescribed to diabetics who have a low risk of cardiovascular events because the risk of bleeding outweighs the benefit. Diabetes patients at intermediate risk of cardiovascular events (patients with a 10-year risk of 5% to 10%, younger patients with at least one risk factor, or older patients with no risk factors) may benefit from aspirin. Aspirin use is reasonable in diabetic patients who have a 10-year risk of events greater than 10% (men over 50 years of age and women over 60 years of age with at least one additional risk factor: smoking, hypertension, albuminuria, dyslipidemia, or a family history of premature cardiovascular events) and are not at increased risk of bleeding.

As a result, the increased use of aspirin in diabetic patients highlights the need for prescribers to exercise greater caution when dispensing or prescribing aspirin to diabetic patients. The use of aspirin in primary prevention patients, particularly those with diabetes, appears to be unsatisfactory as well, though this may be due to a lack of evidence. The Journal of the American College of Cardiology recommends aspirin use in the primary prevention of acute MI and other atherothrombotic cardiovascular complications, as well as aspirin use in the primary prevention of CVD at a high risk of major cardiovascular disease.