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Health@Heart

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Aspirin: The Wonder Drug

What is aspirin?

Aspirin (medically known as acetylsalicylic acid) is a common household medication for pain (analgesic), fever (antipyretic), and inflammation (anti-inflammatory). This “simple” and inexpensive drug is so much underrated and practically taken for granted. Aspirin is really a versatile drug, with a lot of uses, much more than the lay public realizes.

How did aspirin come about?

In 1827, Leroux of France first discovered *salicin*, an active ingredient in the willow bark, and in 1838, Piria produced salicylic acid from *salicin*. In 1899, Dreser introduced acetylsalicylic acid (aspirin) into medicine. This has been in popular use since then.

How much aspirin is used annually?

The estimate in the United States alone is about 20 tons of aspirin is used each year. We are not aware of any data for the Philippines, whose population is roughly one fourth of the U.S.

Why is aspirin a Wonder Drug?

Aspirin was labeled a Miracle Drug or a Wonder Drug when it was first introduced more than 100 years ago, and continues to deserve such a prestigious position in the physician’s armamentarium because of its versatility. Other Miracle or Wonder Drugs when they were first introduced include Penicillin, Steroids, Chemo-therapeutic Agents for cancers, and lately, Viagra, for male erectile dysfunction.

How is aspirin versatile?

Besides being used as an analgesic for pain of various causes (headaches, body aches, arthritis, dysmenorrhea, neuralgia, gout, etc), and for febrile states, aspirin is also useful in the treatment of rheumatic disease, and as an anti-platelet (to thin the blood and prevent blood clots) in coronary (heart) artery and in the deep veins in the legs and pelvis. There have also been articles written in the medical literature postulating reduction in the incidence of colon cancer among those people regularly taking aspirin at a certain dose. Many physicians and patients today take low-dose aspirin (baby aspirin or 81 mg.) daily to reduce the chances of getting a heart attack and stroke by its anti-platelet (blood thinning) action.

Are there other known uses for aspirin?

Aspirin has also been used with success in the treatment of children with Bartter's Syndrome, and also in enhancing the closure of Patent Ductus Arteriosus, an abnormal connection between the aorta (main artery connected to the heart) and the pulmonary artery (to the lungs) in the newborn. If the PDA does not close normally, surgery may be needed to ligate it (close with sutures) before the child starts school.

How fast is aspirin absorbed by the body?

Aspirin, after being taken orally, is absorbed very rapidly (partly from the stomach but mostly from the upper small intestine) and is in the blood stream in less than 30 minutes, the peak level being reached in 2 hours.

Is there allergy to aspirin?

Aspirin intolerance or hypersensitivity, which led to severe toxicity or fatality, is uncommon, but it has been reported in the medical literature. There have been reports of aspirin-induced bronchial asthma and aspirin-induced nasal (nose) polyp (tumor) formation. The more common side effect of aspirin ingestion is stomach irritation, and heartburn, sometimes causing stomach ulcers and bleeding.

Is coated aspirin less irritating to the stomach?

Yes, enteric-coated aspirin is much less irritating to the stomach, since the coating allows the aspirin tablet to remain almost intact while in the stomach and travel to the small intestine where the coating and the aspirin dissolve and get absorbed into the blood stream. This minimizes stomach ulcers but does not totally prevent them. Buffered aspirin (one that has anti-acid) also lessens stomach irritation. The bleeding from aspirin ingestion could be serious. This is why anyone interested in taking aspirin must consult a physician before actually taking it.

Is aspirin absorbed through the skin?

Yes, aspirin (in liniments or sports cream), which is being used extensively to relieve muscle pains and backaches, is absorbed rapidly through the skin.

Why is aspirin being prescribed for heart attack and stroke prevention?

Aspirin, as we stated earlier, thins the blood by preventing platelet aggregation. Platelets are blood component that plays a role in blood thickening or clot formation. When they aggregate (clump together) blood thickens and clots form. Clots tend to clog arteries and veins. When arteries to the heart (coronary) get severely blocked by clots, heart attack occurs, and when this clogging happens to the arteries to the brain, stroke happens. As simple as aspirin, this wonder drug, plays a very vital role in these conditions, together with a change in lifestyle (no smoking, low cholesterol diet, regular exercises, etc.) to maintain a thinner blood condition.

Is aspirin safe for children?

Pediatricians all over the world have for almost 3 decades discontinued prescribing aspirin for children for pain and fever, because aspirin has been implicated in the occurrence of Reye's Syndrome in children following a viral (upper respiratory or gastrointestinal) infection, which syndrome could be fatal. For fever or pain, physicians now prefer to prescribe acetaminophen (like Tylenol) or Ibuprofen, but for some specific illnesses (like Kawasaki Disease, Juvenile Rheumatoid Arthritis, etc.) aspirin is still being used effectively by Pediatricians.

Is aspirin safe for adults who self-medicate?

While occasionally taking two tablets of aspirin for ordinary headache or muscle aches and pains is fairly safe (unless one has a stomach ulcer or a history of ulcer, or is on blood thinner), taking aspirin on a long term basis for prophylaxis or for any condition should only be done under the supervision of a physician.

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