

Diclofenac: Notes for UPSC Exam

Diclofenac is an NSAID or Nonsteroidal Anti-Inflammatory Drug used to decrease inflammation and also as an analgesic (pain killer) in certain conditions. It is delivered as such or supplied in medications under different trade names.

Diclofenac is a featured topic in the General Science segment of the IAS Exam.

What Is Diclofenac?

Diclofenac is a name derived from the drug's chemical name which is 2-(2,6-dichloroaniline) phenylacetic acid. This medicine was synthesised for the first time by Rudolf Pfister and Alfred Sallman and sold as Voltaren by the pharmaceutical company Ciba-Geigy (now called Novartis) in 1973. In India, UK, USA and Brazil, the drug is supplied either as the potassium salt or as the sodium salt. It is mostly sold as a sodium salt in China. In some countries, just the potassium salt is supplied.

How is Diclofenac used medically?

Diclofenac is used to treat pain and inflammatory disorders. It is also used commonly to treat mild to moderate post-operative or post-traumatic pain, in particular when inflammation is also present and is effective against menstrual pain and endometriosis.

It may also help with actinic keratosis, and acute pain caused by minor strains, sprains, and contusions (bruises).

In many countries, eye drops are sold to treat acute and non bacterial inflammation of the anterior part of the eyes (e.g., postoperative states). Diclofenac eye drops have also been used to manage pain for traumatic corneal abrasion.

Diclofenac is often used to treat chronic pain associated with cancer, especially if inflammation is present.

What are the side effects of Diclofenac?

The consumption of Diclofenac has long been linked with significantly increased vascular and coronary risk in a study. As per the study, upper gastrointestinal complications were also reported. Major adverse cardiovascular events (MACE) were increased by about a third by diclofenac, chiefly due to an increase in major coronary events. Compared with placebo, of 1000 patients allocated to diclofenac for a year, three more had major vascular events, one of which was fatal. Vascular death was increased significantly by diclofenac.

Relevant Questions for Diclofenac

Why is Diclofenac banned in India?

The government of India had **banned** the veterinary use of **diclofenac** in 2006 after it was found that the once-thriving vulture population in the country was brought to near extinction after consuming the carcasses of animals that were illegally treated with human formulations of the drug. Along with this, an increased risk in cardiovascular disease was also considered. Thus the decision was made to ban the drug completely.

Why do doctors not prescribe Diclofenac?

The drug was withdrawn from the market due to safety and efficacy reasons. Diclofenac is in a group of drugs called nonsteroidal anti-inflammatory drugs (NSAIDs). They work by reducing hormones that cause inflammation and pain in the body. This also at times have to lead to hormonal imbalance at times.