

ASPIRIN DESENSITIZATION

Aspirin sensitivity is particularly problematic for patients who need an urgent or emergent cardiac or neurologic procedure, such as ¹:

- stenting of an artery (coronary, carotid, or other) or
- following the diagnosis of an ischemic neurologic event.

Desensitization Procedure³

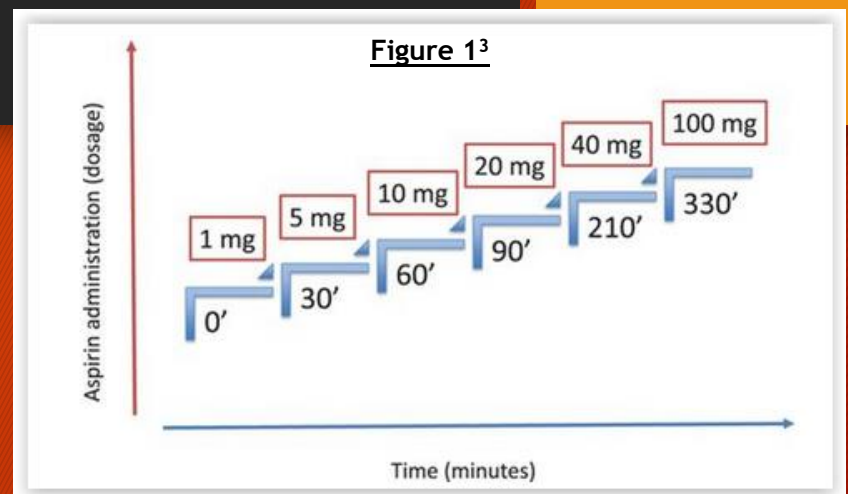
- In all patients, aspirin (ASA) desensitization was performed before coronary angiography except STEMI patient (desensitization protocol was performed after primary PCI).
- Glycoprotein IIb/IIIa inhibitors should be given in STEMI patient post procedure
- Briefly, intravenous access was obtained in all patients before desensitization.
- Six sequential doses of aspirin (1, 5, 10, 20, 40, and 100 mg) were administered orally for 5.5 hours (Figure 1).
- Every 30 minutes, monitor:
 - ⊗ Blood pressure
 - ⊗ Pulse
 - ⊗ Saturation
- Monitor closely until 4 hours after the end of the procedure:
 - ⊗ Mucocutaneous
 - ⊗ Naso-ocular
 - ⊗ Pulmonary reactions
- ASA administration was immediately discontinued if mucocutaneous, respiratory, or systemic signs of hypersensitivity occurred.
- The desensitization procedure was generally performed before cardiac catheterization, with the exception of those with an indication to undergo urgent/emergent coronary angiography.
- After desensitization, patients were instructed to continue aspirin 100 mg daily because sensitivity may recur within a few days after discontinuation.
- In all elective cases, 7 days before desensitization, stop:
 - ⊗ Steroids
 - ⊗ Antihistamines
 - ⊗ Antileukotrienes

Desensitization²

- ⊗ Desensitization is a technique in which the patient is given incrementally increasing doses of a medication under medical supervision to induce a state of temporary tolerance.
- ⊗ After a patient has been successfully desensitized to a Nonsteroidal anti-inflammatory drug (NSAID), that agent or another equivalent NSAID **must be ingested daily in order to maintain tolerance.**
- ⊗ Therefore, desensitization is appropriate in patients who require daily NSAIDs for an inflammatory disorder or aspirin for antiplatelet therapy.

Contraindications² -

- ⊗ In patients with asthma, to proceed with these procedures only if the prebronchodilator forced expiratory volume in one second (FEV1) is ≥70 percent of the patient's best and ≥1.5 liters.
- ⊗ Patients with past NSAID reactions that involved possible anaphylaxis should not be on any medications that may increase the likelihood of anaphylaxis or interfere with treatment of anaphylaxis, such as angiotensin-converting enzyme (ACE) inhibitors or beta-blockers, although there may be individual exceptions to this.
- ⊗ Patients who have experienced other types of reactions while on NSAIDs including severe cutaneous reactions, such as erythema multiforme, Steves-Johnson syndrome, and toxic epidermal necrolysis.



References :

1. Simon R A, Cutlip D. Introduction of aspirin to patients with aspirin hypersensitivity requiring cardiovascular interventions. In: Feldweg A M, Saperia G M, ed. *UpToDate*. Waltham, Mass.: UpToDate, 2019. <https://www.uptodate.com/contents/introduction-of-aspirin-to-patients-with-aspirin-hypersensitivity-requiring-cardiovascular-interventions> (Accessed on June 13, 2019)
2. Simon R A. Diagnostic challenge and desensitization protocols for NSAID reactions. In: Feldweg A M, ed. *UpToDate*. Waltham, Mass.: UpToDate, 2019. <https://www.uptodate.com/contents/diagnostic-challenge-and-desensitization-protocols-for-nsaid-reactions> (Accessed on June 13, 2019)
3. Rossini R et al. Aspirin Desensitization in Patients With Coronary Artery Disease Results of the Multicenter ADAPTED Registry (Aspirin Desensitization in Patients With Coronary Artery Disease). Available from: <https://www.ahajournals.org/doi/10.1161/CIRCINTERVENTIONS.116.004368>. NLM identifier: NCT02848339 (Accessed on June 13, 2019)

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