

Clinical Audit

Continuous Aspirin Administration in patients of Myocardial Infarction During their Hospital Stay - a clinic audit

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Introduction:

Clinically the diagnosis of Myocardial Infarction is based upon history, biochemical and electrographic evidence¹. Myocardial Infarction is the leading cause of death in United States as well as in most industrialized countries of the world². In United Kingdom 63000 men and 24000 women experience heart attack each year³. Because of this increasing incidence of myocardial infarction, new modalities of treatment are constantly being discovered all over the world yet we cannot forget the truly called wonder drug of 20th century "aspirin" whose role in myocardial infarction was established in 1947⁴. Since then 145 randomized drug trials have been conducted on the use of aspirin in vascular disease⁵. Despite this tremendous supporting data, awareness among the healthcare professionals about use of aspirin in the prevention and treatment of life threatening conditions like IHD, MI and stroke is still very poor. This applies to both developed and under developed countries⁶. Aspirin in a dose of at least 160 mg and up to 325 mg should be administered immediately on recognition of MI signs and symptoms and continued daily indefinitely².

This audit was performed to check whether all patients suffering from myocardial infarction have received aspirin in dose of 160 – 325 mg during their stay in the medical ward in Mayo hospital Lahore.

Objectives: The audit was performed to assess the application of ACC/AHA guidelines for management of patients with acute MI regarding administration of aspirin in a dose of 160-325 mg daily during their stay in the hospital.

Criteria of audit: A dose of 160-325 mg of aspirin should be continued indefinitely daily after an attack of MI⁷.

Standard of audit: All patients who have been diagnosed to have acute myocardial infarction should receive 160-325 mg of aspirin daily during hospital stay and continuously thereafter.

Material and methods: A retrospective audit was conducted in medical ward in Mayo hospital, Lahore in which notes (including history sheets, daily progress reports, investigations and treatment tickets) of patients who were admitted with a diagnosis of acute myocardial infarction from 1st Jan 2005 to 31st August 2005 were studied. 45 patients with 25 males and 20 females fulfilling the following criteria were selected:

- Patients less than 80 years of age

- Patients who were confirmed as a case of MI on basis of history, ECG studies and cardiac enzyme levels.

Following patients were excluded from the audit:

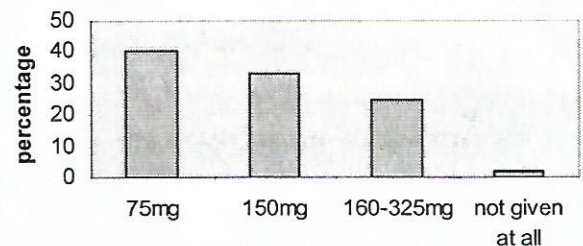
- Patients allergic to aspirin.
- Patients having contraindications of aspirin like those suffering from thrombocytopenia, G6PD deficiency, asthmatics and patients having nasal polyps (8).
- Patients having any other concomitant disease like chronic renal failure, chronic liver disease, chest infection, urinary tract infection, GIT disturbances like acid peptic disease, gastroesophageal reflux disease.
- Patients having clinical history of chest pain for more than 30 minutes and ST elevation on ECG but did not have rise of cardiac enzymes (unstable angina).

Results and data analysis

We found that patients included in this audit had a mean age of 56 years +/- 13.55 out of which 45 patients 84% were discharged, 2% were discharged on request, 4 % were shifted to CCU, 6% left against medical advice and 2% expired.

We found out that out of 45 cases only 24.4 % of cases were given aspirin in the recommended dose of 160-325 mg daily, 40 % of patients received only 75 mg aspirin daily, while 33.3 % of them got 150mg daily and 2.2 % of patients did not receive aspirin during their stay in the hospital. The table and figure shows the statistics:

Aspirin dose given during admission	Frequency	Percentage
75mg	18	40.0
150mg	15	33.3
160-325mg	11	24.4
Not given at all	1	2.2
Total	45	100



Comments:

Aspirin is being under utilized in the long-term treatment of myocardial infarction in the medical ward of Mayo Hospital Lahore as is evident from the results. 2.2% of patients did not receive any aspirin while 40% received it only in dose of 75mg per day. The possible reasons why aspirin was not given in the proper recommended dose even when they were neither allergic nor had a contraindicated could be.

- Doctors might know the importance of aspirin administration but might not know the recommended dose for daily administration.
- Improper documentation of the medication in charts.
- Unawareness of medical staff including doctors and paramedics regarding usefulness of aspirin as continuous therapy.

Suggestions:

- Information leaflets should be available in outdoor clinics and indoor wards for all patients above the age of 40 or in the risk group of MI having complete information about aspirin.
- All doctors and paramedics working in the wards should be repeatedly taught the recommended dose of aspirin to be administered to the patients of MI.
- All doctors and paramedics should be reminded repeatedly about proper documentation of medication in notes.
- Senior doctors working in the wards should check the notes vigilantly.
- This audit should be repeated after 6 months to review improvement in results after applying the above-mentioned suggestions.

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