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Original article:

Study of anorectal problems post ACS post-angioplasty patients: Observational study

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Abstract:

Cardiovascular disease is leading cause of mortality worldwide. Coronary artery disease is most prevalent among them. With increasing diagnosis and treatment modality, number of patient being treated with percutaneous coronary intervention (PCI) is increasing. This small observational study showed 12% incidence of ano-rectal problem (per-rectal bleeding, anal fissure and hemorrhoids) in post ACS, post PCI patients. This is never before described in literature, however is important as sudden cessation of anti-platelets by patients can be detrimental for their cardiac health. Constipation is major concern and contributing factor and should be deal with delicacy. From this study , we may conclude , reasons can be many however problem has small solution for routine laxative prescriptions in these patients with fruit and roughage diet. This can prevent this unwanted small but important problem.

Keywords: Anorectal problems, cardiovascular disease, intervention

Introduction:

Cardiovascular disease is leading cause of mortality worldwide. Coronary artery disease is most prevalent among them. With increasing diagnosis and treatment modality, number of patient being treated with percutaneous coronary intervention (PCI) is increasing. Post PCI care is important for patient for quick recovery and minimal complications. Double anti-platelets is upmost important for these patients at least for one year. Duration can vary according to patient ischemic and bleeding risk. [1] Post ACS post PCI rest is advised minimum for 10-14 days (not complete bed rest) in many patients if not all. Many small problems, post PCI is not discussed or not studied due to small in magnitude or being recovered easily eg puncture site pain, constipation, persistent gastritis due to number of medicines. GI bleeding (melena, haematemesis) due to aspirin is well known complication specially in elderly patients. Ano-rectal bleeding not studied in proper manner but seen in practice.

Methodology:

This is small descriptive observational study post ACS, post PCI patient for their ano-rectal issues. Hundred post angioplasty patient of all age group included and followed for 3 months, indication of angioplasty was ST elevation myocardial infarction. First follow up visit was at end of one month and then at end of 3 months. Patients with previous significant medical history for diabetes mellitus, hypertension, constipation or any other drug use, previous history of PR bleed, history of anal fissure and hemorrhoids were excluded. Patient with ACS other than STEMI not included. Patient asked for their bowel habits and constipation and patient complaining of PR bleed sent for surgeon for local examination and treatment accordingly.

Results:

Average age of study cohort was 49+/-12 years with 72 males and 28 females. 37 males were smoker and none of female was case of primary smoker. All patients were discharged on double anti-platelets and high intensity

statins. Choice of anti-platelets was decided by treating cardiologist accordingly to patient characteristics. High Intensity statin included 80 mg atorvastatin or 40 mg rosuvastatin. Beta-blockers, ACE-I/ARBs or MRAs were not in universal prescriptions and use of these were depended on individual vitals and ejection fraction. 12 out of 100 patient complained for per-rectal bleed on first or second follow up visit within three months of post angioplasty. Nine were male and three females. On local examination by surgeon ten patients were having typical constipation related anal fissure and 2 were having internal hemorrhoids. Age, sex or smoking status was not significant associated with occurrence of per-rectal bleed. Constipation was significantly associated with PR bleed and present in 100% patients in bleeding group. (p value not calculated as 0% had no constipation in bleeding group) (strongly associated).

Variable (100 patient)	Bleeding group (out of 12)	Non bleeding group (out of 88)
Age (yr)	54 +/- 6	49 +/- 12
Gender (M:F)	9 males : 3 female	63 male: 25 female
Constipation (39%)	12 (100%)	27 (30%)
Smoker	5 (42%)	32 (36%)
Statin –Rosuva Atorva	9 (75%) 3 (25%)	70 (80%) 18 (20%)
EF (%)	36 +/- 6	34 +/- 8
DAPT	100%	100%

Discussion:

There is a paucity of data surrounding the safety of endoscopy following ACS. This stems from the unpredictable nature, varying indication, and low incidence of endoscopy after ACS. Anal fissure and hemorrhoids is minor problem and resolved in majority of patients but is never described before in literature in patients of post-angioplasty. Magnitude of problem is small in view of incidence, however is important with ongoing anti-platelets drugs. Excess bleeding with blood thinner drugs can be worrisome and can lead to temporary hold on drug either by patient himself or nearby doctor. Stopping of anti-platelets might be sometime disastrous, as it increases risk of stent thrombosis. Constipation is universal in all these patients and there was no previous history of PR bleed, even in patients of hemorrhoids. Multiple factors are responsible for constipation. Statin is not only part of this blame game. Various statins including simvastatin, atorvastatin has been reported for gastrointestinal side effects.[2,3] However larger RCT of rosuvastatin doesn't showed significant constipation in statin group compare to placebo.[4] Retrospective cohorts and meta-analysis also not concluded for statin related significant constipation [5] however dose was not high intensity in all groups. Second factor for constipation is related to rest advised to patients. Results of several reviews highlight a disparity in the duration of post-MI bed rest; from 2 to 12 days [6] and 2 to 28 days. [7] Complete bed rest duration varies with various guidelines is usually not extended beyond 3 days in present era. [8] Post STEMI, patient usually advised to do only routine small activities till 10-14 days. This partial immobility is one of factor contributing to

constipation. Third factor responsible is less water intake in patient of post STEMI. It takes 6 weeks to stunned myocardium to recover, therefore ample fluid intake is not advisable for patients for prevention of heart failure symptoms.

Hemorrhoid is an increasing prevalent gastrointestinal disorder contributing to reduced quality of life. Clinical manifestations were in great diversity, ranging from asymptomatic to rectal bleeding. Increased intraabdominal pressure and fragile supporting structure were the principal causes of the increased incidence of hemorrhoid.

The presentations of coronary heart disease (CHD) were varied, including stable angina, unstable angina, and acute myocardial infarction. CHD imposed a great medical burden worldwide because of high mortality rate. Several CHD-associated risk factors have been well defined according to previous investigations.

Although hemorrhoid and CHD shared several risk factors; however, to our best knowledge, there is limited investigation on the correlation between hemorrhoid and the risk of CHD development in the literature.

Conclusion:

From this study, we may conclude, reasons can be many however problem has small solution for routine laxative prescriptions in these patients with fruit and roughage diet. This can prevent this unwanted small but important problem.

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